

BERKSHIRE

COMBINED SANITARY DISTRICTS.

REPORT

TO THE RURAL AND URBAN AUTHORITIES

OF THE

COMBINED SANITARY DISTRICTS OF

BERKSHIRE,

FOR THE YEAR ENDING DECEMBER 31st, 1882.

BY

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NEWBURY RURAL SANITARY DISTRICT.

Inspector of Nuisances, Mr. George Marshall.

THE return of the Inspector of Nuisances (see Table VII.) shows that in this district during 1881, 1,337 premises, or rather more than a third of the whole have been inspected, on 232 of which nuisances were detected, all of which have been abated in accordance with the notices served; this number is not quite so large as usual on account of the amount of additional work arising from the constant supervision of the sanitary management of the numerous cases of zymotic disease which have been reported, and which were each visited daily for eight weeks, thus beyond question materially checking the spread of what in all probability would otherwise have become outbreaks of great severity.

The general sanitary condition of the district is good, both as regards the tenements themselves, and their closet and drainage arrangements, and in the cottages where the attacks occurred to which I shall have to refer, careful inspection discovered little that was defective from a sanitary standpoint, except the comparatively limited sleeping space, which does not however as a rule approach the limits assigned to "overcrowding." I have submitted five samples of drinking water to examination: four from farm houses and one from a cottage

where fatal diphtheria occurred; all were distinctly polluted and unwholesome, although in one case the injurious constituent was not sewage, but lead dissolved off from the pipes which conveyed it to the house from a spring at some distance. Iron piping was substituted for the lead. A tube well was provided in one case; the other wells were cleaned out, and the sanitary faults causing pollution remedied and set right.

The returns of pauper sickness received from the Clerk to the Union show 140 new cases coming under treatment, of which 28 were those of children under five. Thirty-seven were attacks of zymotic complaints (see Table II), the majority being scarlet fever, diphtheria, and croup. The prevalence of these diseases, both in the Rural and the Urban Sanitary Districts of the Newbury Union, calls for special notice on account of the mortality due to them, which was in fact rather more than a fifth of the total deaths during the year, or 62 out of 303 from all causes in the entire Union. In the accompanying return I show the monthly mortality in, and the geological character of each locality where fatal attacks occurred in both districts; and it will be seen, upon looking at the second column, that the places (chiefly in Chieveley parish) visited by both diseases (and especially by diphtheria and croupal attacks) in the Rural district, were for the most part situated on the retentive plastic clays of the Woolwich and Reading beds, nineteen out of a total of twenty-two deaths occurring on this formation, patches of which are found here and there for some little distance on the north side of the Kennet valley (being small extensions in a northerly direction of these beds, which, with the London clay, prevail over a considerable tract of country to the south of that valley), overlying in places the chalk downs and highlands which stretch northwards from the Kennet towards the great backbone of the Ridge Way; of which formation Chieveley parish for the most part consists,

Monthly List of Deaths in Newbury Rural and Urban Sanitary Districts in 1882, from Scarlet Fever and Diphtheria (including Croup and Diphtheritic Croup), with Geological character of each locality.

A—Plastic clays of Woolwich and Reading beds; B—River bed alluvium; C—Chalk;
D—London clay. In monthly columns letter D or S indicates disease, and * a death.

Age or Locality.	Parish.	Geological character.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
RY RURAL TRICT.														
se Farm ...	Chieveley ...	C	D*											
age ...	" ...	A	D* S	D* S										
... ..	" ...	A		S										
gton ...	Shaw ...	B C			D*									
am ...	Welford ...	A		**S	...	S								
am ...	Thatcham ...	A			S*	...								
& Wood ...	Chieveley ...	A			D*	...						D		
ane ...	Thatcham ...	A				D*								
ross ...	Speen ...	A				S							D*	
wn ...	Thatcham ...	A				S*								
... ..	Shaw ...	B C					D*							
y Court ...	Chieveley ...	A					D		D*	D*				
sh... ..	Thatcham ...	A						D***						
bourne ...	Chieveley ...	A							D***			D		
ie	Enborne ...	A							S*	S*				
Lock ...	Greenham ...	A							S*					
am	Woolhampton ...	A									S			
aston ...	Aldermaston ...	A									D**			
ore	Chieveley ...	A									S			
ey Village	" ...	A & C									S	D	D*	D**
Heath ...	" ...	A										D	D*	
on	Brimpton ...	D									S*			
S IN RURAL DISTRICT— FROM SCARLET FEVER	...	...	...	1	2	1	1	3	4	1	2	1	2	2
IPHThERIA, DIPHTHERITIC CROUP, &c.	...	...	2	2	1	1	...	...	2	1	1	...	...	...
...	...	...	2	3	3	2	1	3	6	2	3	1	2	2
URY AN CT	Scarlet Fever ...	{ B & C }	...	...	...	2	4	2	3	4	4	2	1	...
	Diphtheria, &c. ...		...	2	3	1	...	1	1	1	...	...	...	1
	(Deaths) ...		...	2	3	1	...	1	1	1	...	...	...	1
	TOTAL ...	...	...	2	3	3	4	3	4	5	4	2	1	1

The first diphtheria attack reported, a fatal one, as to which there was no history of infection to be made out occurred at an isolated farm house at Penclose, situated on the chalk, but on rather a low level; and although the house was roomy and very clean, its sanitary arrangements and surroundings were in many respects exceedingly faulty. They were thoroughly

reconstructed in accordance with my advice. The next was at Hermitage, a fortnight later, and two children died in this family. It appeared on enquiry that there had already been some fatal attacks at the farther end of this village (which is situated partly in this sanitary district, and partly in that of Wantage, the national school being in the latter, as well as the earlier cases just referred to), and it had co-existed with scarlet fever, of which a few attacks were reported at Oare—a mile farther north. The sanitary condition of the cottages where the illness broke out was very satisfactory; but the children attacked, like the majority of those who subsequently took the complaint, either themselves attended the Hermitage School, or had brothers and sisters who went there. The school not being in the Newbury District, and Wantage not in the Sanitary Combination of Districts, neither the Authority nor myself were able to interfere further than that at my request a letter was written to the Wantage Authority, pointing out the facts and inviting their attention to the matter, &c. In February, scarlet fever appeared in Welford parish, at Wickham, causing two deaths in one family; the complaint was probably imported, and the cottage—old and poorly ventilated, but clean. In March, there were attacks at the Chieveley end of Thatcham, and at Bussock Wood, as also at Donnington on the outskirts of Newbury, and situated, like it, mostly on the alluvial deposits of the Kennet, or on the chalk, there being at the same time three fatal attacks in the adjoining Urban District. In April, a family living at Long Lane, Thatcham, close to Hermitage School (which was attended by the children), had five out of seven children attacked, the illnesses being entered in the pauper sick returns as “typhoid, diphtheria, and scarlet fever.” The cottage was exceptionally clean, but rather overcrowded from the number of children; a dry earth closet in use; all slops utilized on the garden, and the water supply fairly good. The first to be seriously attacked was not one of the children attending the school, but an elder sister, the others having

so called "colds and sore throats" previously; one died afterwards from bronchitis when nearly convalescent. The children of a second family who attended the same school were also attacked.

Scarlet fever, present at this time in the town, also appeared at Stockcross, Thatcham, Newtown (1 death), as also at Wickham and Bradley Court in Chieveley parish during April and May.

In June diphtheria was brought to Cold Ash, Thatcham, by a family removing there from Hermitage, where the children attended the school, and three deaths occurred. In the following month it broke out at Winterbourne amongst the children attending the school, the sanitary arrangements of which were very good, as were those of the invaded cottages, with the exception of lowness of situation and dampness of site: here also there were three deaths. Next followed several attacks, two of which were fatal, in a cottage at Bradley Court; the only sanitary defects were some dampness of site and stagnation of air; these children also attended the school at Hermitage. These cases were the last in that part of the district for some two months, after which interval it again appeared during October accompanied with a good many ill-defined "throat cases" in several cottages at Winterbourne, North Heath, Bussock Farm, and Chieveley village. During the whole year the attacks were confined mainly to children and young persons, the cottages invaded were generally at some considerable distance from each other, and their sanitary condition fairly good, with the exceptions already referred to, viz., low level, damp site, and position on the clay. The only circumstance common to the majority of the children attacked in each locality was their attendance at the same school, especially those at Hermitage and Winterbourne, and the mortality was wholly of children between two and twelve years of age. The unusual persistence of the complaint for so long a time, notwithstanding the constant watchful supervision

carried out by the Inspector day by day (for from six to eight weeks in each case) in accordance with my advice in respect of isolation, disinfection, removal of all foul or infected matters, and improvement of general sanitary condition of the invaded premises, seems to point to some factors of causation over which these measures have but a limited power; but it should be remembered that many of the so-called "sore throats," &c., of which the medical attendant hardly ever hears, and the sanitary officers only when enquiry is being made into the graver attacks, are really very often mild forms of the more serious disease, which, passing unnoticed, thus become very true though unsuspected channels of infection. Whenever either diphtheria or scarlet fever is prevalent "sore throats" should always be looked upon with suspicion by parents, and especially so by school managers, and children suffering from them should not be allowed to attend school, or to mix with others till they have been seen by a medical man, and their cases pronounced to be free of anything like an infectious character.

In addition to the foregoing outbreaks I should add that scarlet fever broke out at Enborne, in July, probably brought from Newbury in the first instance, and being at first kept secret, it spread to five families, causing two deaths. The school was closed, and the precautions taken stamped it out completely in a few weeks; similarly it appeared at Bull's Lock Green, causing one death, and was brought to Brimpton and Midgham from Aldermaston (see report, Bradfield District), being in each instance limited to the one house.

Diphtheria appeared in September in one of two cottages near Aldermaston Station, causing the deaths of two infants; the sanitary conditions here were distinctly bad; but no history indicating importation of infection could be made out, nor were there any other known attacks in the locality; the site was low, damp, and on the clay, and further the closets were in bad order, water unsatisfactory, slops badly disposed of, and there

was a large accumulation of stable manure within a short distance; all which matters were dealt with and remedied.

As regards other zymotic complaints, small pox has not been once reported, and measles has not proved fatal in any case; there have been six deaths from whooping cough, and three from continued fever, of which two were "enteric," one being that of a child living at Thatcham, where the water supply was suspected, and the other of a man who came down from London ill. A few other isolated cases have come under observation, one being at Woolhampton, where the question of an improved supply of drinking water still remains unsolved, but there has not been anything of a more serious character to report.

The births registered during the year numbered 301, being at the rate of 26·7 per 1000 of the estimated population, and under the average of the district. The deaths actually occurring in the district were 301; adding thereto eleven of those persons dying in the Union House who had previously lived in the Rural area, we get a corrected death rate of 17·4, which is a little above the rates of the last four years.

The increased fatality of diphtheritic attacks brings up the "zymotic diseases" death rate to the unusually high figure of 3·4 per 1000, while that for consumption was very low, viz., ·7, and that for lung inflammations 2·4, their percentage ratios of the mortality from all causes being respectively 19·4%, 4·6%, and 13·8% (see Table VI.)

The proportion borne by the total corrected deaths to the registered births was 65·1%, and by the deaths under one year 9·9%:—15·3% of the entire mortality occurring at this age. Those under five years were 62 in number, and equal to 31·2% of the whole, while 70 persons had passed their sixtieth birthday, representing 35·7% of the deaths at all ages (see Table III.)

NEWBURY URBAN SANITARY DISTRICT.

Inspector of Nuisances, Mr. B. Sargent.

DURING the year now under review, the scheme for the new sewerage of this district has advanced another stage, an enquiry having been held by Mr. J. T. Harrison, of the Local Government Board, with the result that the plans were approved. The sanitary work of the year has otherwise been mainly of a routine character, although a persistent and severe outbreak of scarlet fever, and a considerable prevalence of diphtheria and croup in the earlier months of the year, and again in the summer, added considerably to the duties of the sanitary officers. The number of premises inspected was 756, being about a third of those in the district, and nuisances were remedied in 58 of the number, the details of which will be found in Table VII. At Donnington-square, the sanitary condition of which was examined by me in detail at the close of 1881, and briefly summarized in the report for that year, the alterations advised have for the most part been satisfactorily carried out, though in some few premises the Inspector reports that nothing has as yet been done. Complaint was made to me of the cesspits at Westfields, where, owing to the low level of the ground, there is no entrance obtainable to any of the present sewers, and where, the cesspits being uncemented, they rapidly fill up after rain, while as soon as the subsoil water passes off, the liquid sewage percolates from them into the neighbouring wells; although, fortunately, the injury to health is not so serious as might at first have been supposed, as the drinking water supply in this neighbourhood is largely from the mains of the Water Company. Under existing circumstances no sufficient remedy is available, and all that can be done, pending the carrying out of the sewerage works, is necessarily of a temporary and makeshift character.

My attention has also been called to the defective ventilation

of the drains in some other houses of the better class ; these have been remedied in accordance with my advice.

The condition of the water supply of the courts, and of other parts of the district has had considerable attention, and I have submitted thirteen samples (from nine different localities) to analysis, with the result that no one of them was found to be good, or even of fair quality ; only one of them could be classed as "doubtful," three being very distinctly sewage polluted, and the rest fouled to such an extent as to be altogether unfit for domestic use. In five instances a new supply was obtained, either from tube wells driven into the chalk underlying the town, or from the Company's mains, and in the other cases the wells were cleaned out.

As regards diseases of the "zymotic" class, small pox has not appeared in the district, while neither measles nor enteric fever has occasioned any mortality during the year, although a few scattered attacks of the latter complaint have come to my knowledge, to which I shall refer later on.

In the report on the Rural District I have referred to the prevalence of scarlet fever, diphtheria, and croup in some parts thereof, and I have prepared a return showing the deaths from these complaints both in the rural and the urban areas ; showing also, and especially as regards diphtheritic attacks, the great preponderance of deaths on the clays of the Woolwich and Reading beds, as compared with those occurring on the chalk, notwithstanding that the latter so greatly preponderates in point of area. The Urban District is partly on both formations, which are found both to the north and to the south of a broad central strip of alluvial deposits running east and west along the bed of the Kennet, on which all that part of the town between the London Road and the river stands. I am not able at present, however, to show any definite relation between the number of attacks I have now to speak of and the geological formation on which they occurred in this district ; for in a comparatively crowded place like Newbury, other factors come

into operation, and greatly complicate the problem, which are not found in the limited and isolated populations of the villages in the Rural District; but I may add that only one death from either of these complaints occurred in those parts of the town which are situated on the chalk, the mortality being confined to the alluvial or clayey parts of the district.

Early in the year diphtheria and inflammatory croup made their appearance, two deaths occurring in neighbouring courts on the west side of Northbrook-street, followed within a few weeks by four others within a few hundred yards to the north and west respectively, together with a certain proportion of non-fatal attacks. All these deaths were in damp localities, and in houses situated on a low level, or where the sewerage was bad; or where there were no sewers at all, but the soil was so to speak honeycombed with cesspits, and the subsoil water came very near the surface, even if actual flooding did not occur. In some other cases, the drinking water was derived from the Company's mains, consequently a polluted water supply was not a factor in the outbreak so far as they were concerned and (as with the scarlet fever epidemic of which I have next to speak), no connection could be made out between them and the milk supply, although a careful examination was made in view of its possibility as regards both. No direct communication or intercourse between the several families could be ascertained, and no importation of infection from the villages where cases had occurred previously could be made out in any instance. This outbreak subsided for a time in April, but towards the end of the month scarlet fever made its appearance, showing itself almost simultaneously in widely separated localities in the district. Here again no clue could be obtained by which one could account for the first cases; there was no common milk or water supply, nor any sewerage system common to all. The children attacked attended different schools scattered throughout the town, and they had no kind of traceable communication with each other. In some instances

children took the disease who, from previous general ill health, had been confined to the house for some weeks, or had never been sent to school, while no direct or indirect channel of infection could be made out; though as the epidemic progressed there were many instances in which the illness was clearly traceable to infection from the children of neighbouring families where the complaint was present, but (in the absence of any provision for obtaining compulsory notification of cases as they occurred) had been concealed not only from the sanitary officers and the school authorities, but also from their neighbours, who thus unwittingly allowed their children to go into what proved veritable fever traps.

The outbreak consequently extended gradually throughout the district; and though it was by no means limited to the closest, worst ventilated, and most unhealthy parts of the town, but appeared also in many fairly healthy localities, the deaths (21 in all) occurred mostly in the low level localities of the outskirts, rather than in the centre of the town itself. As the schools did not appear to be the chief disseminators of infection, I did not consider it requisite to advise their being closed, bearing in mind the consequent great increase of facilities for spreading the disease among the poorer class of children playing together without restraint in the courts and alleys all the day; but the greatest precautions were urged on the school authorities to prevent the admission of any child coming from an infected house; the schools were regularly visited twice a week by the inspector, and I wrote to the local medical men asking them to report their new cases. Disinfectants were also freely supplied to infected families, and they were regularly and liberally used in the invaded localities to the closets and cesspits in the courts, &c., as well as to the sewers, and in some instances to the roads. In September, the epidemic which had seemed to be disappearing, suddenly broke out again with some intensity; but there was no considerable extension of the outbreak, although from time to time fresh cases were reported, and even at the

close of the year it was not entirely at an end, three fresh families, living in widely separated parts of the town, their children also attending different schools, being attacked in the middle of December.

Concurrently with scarlet fever, diphtheria and croup again appeared in the district in the middle of the year causing four deaths; and there was another fatal case at the end of December, making a total of eleven deaths during the year.

Whooping cough also proved fatal to six children, and diarrhoea to three persons, of whom two were about 60 years of age.

Two deaths were certified as due to Pyæmia. One of these the medical practitioner in attendance informed me, had no sanitary significance; the other being immediately followed by an outbreak of scarlet fever in the family, was also considered by the medical man as probably a suppressed attack of that complaint.

Typhoid fever has only come to my knowledge in a few isolated attacks, of which none were fatal. The first case was in a cottage at Greenham, where the well water was peaty, and the drinking water was therefore taken in preference from the mill stream behind the cottage, which at that point had received all the contents of the town sewers. As the Company's mains do not extend to this locality, a tube well was driven into the chalk; but the tenants still persisted in using the water from the stream, and in the autumn another case occurred in the same block. In the centre of the town two cases were reported which were considered by the medical attendant to be directly due to the use of the excessively impure water (which I analysed) of the pump well. It was within a few feet of a sewage drain, and was accordingly closed, the Company's water being laid on. Some suspicious attacks of an enteric character occurred in another court under exactly similar circumstances, and the same course was adopted.

Owing to the epidemic of scarlet fever, about a third of the pauper sickness reported during the year (110 cases in all)

was "zymotic," and nearly the same proportion occurred under 5 years of age—see Table II. For the same reason, the total mortality, though still considerably under the mean of the eight years 1874—81, shows an increased rate of nearly one per 1000 above that of 1881; the proportion of "zymotic" deaths to those from all causes, and of mortality under five years of age to that at all ages being increased in even a greater ratio. After deducting the deaths in the Union House of persons previously living in the Rural District, we get a total corrected mortality of 182 among a population estimated at 10,125, which is equivalent to a rate of 17·9 per 1000 (See Tables I. & IV. sheet B).

The births numbered 349, or nearly 40 in excess of those registered in 1881, the rate was therefore the high one of 34·5 per 1000, being the highest for the year of any district in the combination. Comparing the rates of mortality from various classes of disease in 1882 with those of the preceding year, we find that the "zymotic" death rate had risen from 1·0 to 4·2 in the thousand, while that of consumption was only 1·3 as against 2·9 in 1881, and that of lung inflammations, 2·2, had remained practically stationary (see Tables V., VI.)

Taking the ages at which death occurred we find similarly that there was a very great increase in the mortality during infancy and early childhood (under 5 years) which rose from 41 in 1881, to 81 in 1882, or nearly half the entire mortality of the year; so that while the percentage of total deaths to births had actually decreased from 54% to 52%, the ratio of deaths under one year to births rose from 9% to 14%; and that of deaths under one and under five years, to the mortality at all ages, from 17% and 25% to 27% and 45% respectively. On the other hand, the deaths occurring from 25 years of age and upwards numbered only 73 as against 104 in 1881, and as a necessary consequence the percentage proportion to total mortality of the deaths occurring at these later ages sank from 37% to 25% (see Table III.)

HUNGERFORD RURAL SANITARY DISTRICT.

Inspector of Nuisances, Mr. Charles Snell.

DURING the year 1882 the number of premises inspected in this district was 1874 out of a total of about 4,000 which it contains, and on 240 of them ordinary nuisances were detected, for the most part in Hungerford, Baydon, Aldbourn, and Ramsbury, in which last village complaints relative to the piggeries established there have been frequent. Some fifty of these were remedied at once in accordance with the Inspector's instructions, 187 being formally reported to the authority, nearly all of which have been abated, and it has not been necessary to take legal proceedings in any case (for details see Table VII.)

The general sanitary condition of the district is as a whole fairly satisfactory, although in some localities, such as along the Lambourn Ridge and valley, as also at Chilton and the lower part of Hungerford, as well as the Bedwyns and Froxfield, the water supply is not what it should be; and the driving of tube wells would in most of these places be a practicable as well as a very beneficial sanitary work.

Samples of water have been submitted to analysis by me from two premises on account of illness which it was thought might have been due to their use for drinking purposes. In one instance the attack was one of typhoid fever, and the water was found to be in some respects distinctly contaminated; but further enquiry rendered it probable that the illness was most probably due to the defective trapping of a drain under the bedroom window of the patient. In the other case, which was also at a house of the better class, attacks of serious illness had occurred from time to time within the last few years, and two recently which were attributed to blood poisoning, and attended with one death. The water samples from the two wells on the premises gave little or no evidence of pollution; but I found the sanitary arrangements extremely defective, both in plan and condition. The closets and sinks were close

to the living and sleeping rooms, with unventilated pipes, and provided with traps of the most make-believe sort, discharging also into an unventilated cesspit dug under the floor of the saddle room, which opened on a narrow confined passage close to the house, which was both out of repair, generally ill-planned, and unhealthy, the foul air from the drains passing into the passages, bedrooms, and even the drawing room.

I advised as to the alterations required, including the entire remodelling and reconstruction of the sanitary fittings. The house is however no longer occupied.

The serious zymotic illness of the year has been almost confined to whooping cough and to scarlet fever, which last prevailed up to late autumn in different localities throughout the district, especially in Aldbourn, Baydon, Lambourn and Eastbury, causing five deaths at each place, and at Ramsbury, where the attacks though pretty numerous were mild, and only two deaths occurred: while at Kintbury and Hungerford where there were several cases, none proved fatal. At Aldbourn, the complaint, which first appeared in 1881, as described in the report for that year, assumed something of an endemic character, cases cropping up two or three at a time from January to August. There is no question but that its long persistence in the village was due to the fact that various persons in whose families attacks occurred kept them carefully concealed, and that thus fresh foci of infection were established which it was very difficult to deal with. Much the same thing happened at Baydon, where the first pauper cases were reported in March, but the infection had spread from the house of a shopkeeper in the village, in whose family attacks had occurred previously, and who had kept the matter secret. On this coming to the knowledge of the Authority, he was virtually compelled to close his shop for the time; the last case here was reported in June. At Lambourn and Eastbury, the infection was probably brought into the district from the neighbouring villages on its northern side. It appeared in August

in a very poor dirty half-fed family, and one child died mainly from neglect, while the others were, through the ignorance or carelessness of the parents, sent to school as usual while it was lying ill, with the usual result that infection spread among the other school children, and three died.

About the same time it broke out at Ramsbury, and here also the carelessness and ignorant or wilful recklessness of some of the parents in altogether ignoring the cautions given them much hindered the stamping out of infection; thus, in addition to the ordinary difficulties arising from the absence of or the imperfect nature of the isolation practicable in the cottages of the poor, such cases as the following occurred:—patients were brought down into the living rooms, and even went out to harvest work, while the skin was still peeling after the attack, and they were in an intensely infectious state; in other instances friends were invited to the house to dinner and tea, and even to the sick room, while the children were ill in bed with the complaint. Of course all that could be done was tried to prevent or to check everything of the kind, but it seems to be almost impossible to get persons of that class to realize or understand the nature and amount of the danger to which they expose their friends and neighbours by conduct of this kind. Here, as at most of the other villages invaded, the public elementary schools were closed in accordance with my advice, one great reason for which was that in rural districts children from widely separated localities come to the school as to a common centre, and thus any infection that may be brought there is likely to be carried on to places which otherwise would in all probability have escaped, while from the scattered character of the cottages and population there is very much less probability of the children finding opportunities of playing together, and so communicating infection, than there is in the closely packed courts and alleys of a town.

As to the total number of cases that occurred it is impossible to speak with any accuracy. As many of the attacks were mild

they probably amounted to some two hundred and fifty or three hundred. Sixty-seven premises were disinfected by the Inspector, and fifty-four cases, occurring in thirty families were returned in the pauper sick lists. The total deaths from the complaint during the year were eighteen, of which two were of adults and eleven of children between five and thirteen years of age; but it should be remembered that this disease, in addition to the mortality directly caused by it, often leaves behind it the seeds of permanent injury to health.

Whooping cough caused eight deaths, for the most part in the neighbourhood of Hungerford, nearly all were of infants, and they were scattered over the first nine months of the year.

Only one death was referred to diphtheria, and that was of a child two years old living in a lane at Hungerford, where the only special sanitary defect noticeable was a foul gutter in front of the cottage.

The total amount of pauper sickness reported in the weekly returns made to me was 1,041,—205 cases being under five years of age (see Table II.)

The entire number of deaths amounted to 300, and of births to 568, being a per thousand rate of 17·0 and of 32·3 respectively, both, and especially the births, being somewhat higher than in the previous year. There is a corresponding increase in the relative proportions occurring under one and under five years of age, of the deaths at all ages, these being respectively 15·3% and 24·3%. Between 5 and 25 the deaths were relatively few, but nearly 48% of the whole were of persons above sixty (see Table III.), this being 12·5 per cent. above the mean for the combined districts, and nearly 4% above the rate for this district in 1881.

The ratio of total deaths to births was, as in 1881, nearly 53%, and of deaths under 1 year about 8%. The death rate per 1,000 for zymotic diseases was 2·0, for consumption ·7, and for lung inflammations 2·5; their respective ratios of the deaths from all causes being 11·7%, 4·3%, and 15% (see Tables V. & VI.

ABINGDON RURAL SANITARY DISTRICT.

Inspector of Nuisances, Mr. Edward Mudd.

THE sanitary history of this district in 1882 has been of the usual character, and has not been marked by any serious or widely extended outbreaks of zymotic or other illness. During the year 1,644 premises have been inspected, nuisances of the ordinary type having been discovered in 389, of which 374 have been abated: nearly two-thirds of the number referred to foul closets and drains (see Table VII). Nine houses were closed as unfit for habitation at Appleton, Sutton Courtney, and Steventon, of which two were pulled down, and the rest, with two exceptions, reopened after the necessary repairs and alterations had been effected. A few additional earth closets have been adopted, but the prejudice against their introduction is but slowly overcome, the average country labourer, like too many of higher position from whom a better appreciation of their sanitary value might be looked for, being unwilling to take the small amount of trouble necessary to keep them in proper condition. The cesspits still too generally in use are however as a rule much better attended to than formerly, and together with the drainage of the district are as a whole kept in fair order. The state of the ditches and streams, especially in the vicinity of dwellings is not however what it should be, they are too often used as sewage carriers under these circumstances, giving rise to a nuisance when the ditches dry up in the summer, and necessarily fouling any streams into which the sewage passes.

The recently adopted bye-laws as to new buildings have put a stop to the erection of unhealthy houses in the area to which they refer; but building operations have been a good deal at a standstill during the year. It is however to be regretted that these bye-laws do not apply to the entire district instead of only to a part of it. Sanitary and structural arrange-

ments, which are inadmissible on grounds of health and safety in one parish, are not less so because the house is erected outside its boundary line.

I have again had occasion to report on the unsatisfactory condition of several of the cottages at Steventon, some of which were unfit for habitation, although from the impossibility of finding fresh cottages for the tenants, two have still been allowed to be temporarily occupied. The state of the ditches in and near the station road was also reported on, and the required orders having been issued by the Authority, some improvements were made as regards them; but with reference to the cottages, although something has been done towards putting them in a better condition, the works have not been at all satisfactorily or fully carried out. I have also again reported on the want of proper means of drainage for the houses erected recently or within the last few years in the Radley-road, and on my recommendation application was made to the Urban Authority with a view of obtaining an easement into their sewerage system, as at present the sewage in this locality passes into "soakage" cesspits, causing consequent pollution of the drinking water, and its attendant risks of injury to health. A Report has also been presented relative to nuisance arising from horse boiling premises recently established in the Oxford Road. I found the place in a very foul and offensive state, closely adjoining the main road, and without any arrangements or conveniences for carrying on such a business without creating a nuisance, a considerable number of pigs being also kept on the place in extremely filthy pigsties. I advised that the necessary steps be taken to have the premises closed, unless a complete and thorough change was made in the arrangements of the place and the manner of conducting the business.

Eighteen samples of water (from fifteen localities) have been submitted to analysis by me, of which eight were in connection with attacks of enteric fever and five were from dairy farms, most of the others being from water supplies believed to have

occasioned some kind of zymotic illness. The general results of the examination were as follows:—None could be placed in the first class, two were of fair quality, five doubtful, five distinctly polluted, and six excessively foul. The polluted wells have either been replaced by a fresh water supply, or cleaned out, and the sanitary arrangements of the place put into proper order.

As regards diseases of the zymotic class, no case of small pox has come to my knowledge, while measles and diphtheria do not appear among the fatal diseases of the year, although attacks of illness (mostly the first-named) have been reported from time to time. Scarlet fever has broken out at various places during the summer months, but the cases were comparatively few, and were fatal in only seven instances and in four families. It was first reported at Steventon in the end of June, but no history of infection could be obtained. There were three deaths in two families. Within a few days it appeared at Chiselhampton, the patient being a lad recently returned from Oxford, there being at the time some cases also at Hincksey, on the outskirts of that city. In each case, every possible precaution was taken, and there was no serious spread of infection. Towards the end of October it appeared at Cumnor, causing two deaths in one family, and again early in December there was an outbreak at Clifton Hampden at the school house, where two of the master's children died, and two children attending the school from Burcott fell ill. There was here also no history of infection obtainable; but the school was at once closed till after the Christmas holidays.

Isolated attacks of enteric fever have been reported several times, but in no instance has infection spread beyond the first family, with one exception. These cases occurred at Drayton Berks., Dry Sandford, Sutton-Courtney, and Sandford-on-Thames: the water was found to be polluted more or less in nearly every instance, this being also the most prominent sanitary default found on any of the premises, and no history of exposure to infection was obtained. All these attacks ended

favourably. At Clifton Hampden there was however a somewhat severe though limited outbreak, affecting only two families, but causing two deaths out of ten more or less distinctly marked attacks. A full report was presented to the Authority, of which the following remarks are a brief summary. The first to fall ill at the end of April was a woman hardly recovered from her confinement: the attack was rapidly fatal, and was certified as "muco-enteritis."

The case was at a roomy farmhouse, but reported as having had a quantity of fouled and disused clothing under the bed, and in other parts of the house, which was kept close and ill-ventilated by the occupiers. I found the water supply of fair quality, and the vault closet, though nearly full, pretty well kept and not offensive, it was at a good distance from the house and well, and at a considerably lower level than either, there being a sharp fall from the house which was on the "gault" towards the Thames. The husband and three children were attacked with varying degrees of severity, some of the attacks being distinctly characteristic "enteric fever."

The nurse in attendance also took the complaint and returned to her own cottage in the village, where she died, having communicated the infection to her husband, who had a severe and typical attack, and to her three children who had it in a less marked and distinctive form. At this cottage, which was extremely clean, there was not any special sanitary defect, except that it stood at a rather lower level than the road, and that some of the surface water found its way into the well in consequence (a new well has since been provided). I analysed the water both here and at the farm house; neither was reliable, but this was decidedly the worst, although even it was not especially foul. There was no milk supply at either house. No previous case had occurred in the village, and the most searching enquiry failed to throw any light on the origin of the first attack through intercourse with any infected person, or through food, drink, or clothing fouled with specifically

infected discharges. No person from the house where the first case occurred had been away from home for months, nor had any strangers come to the house. A trained nurse from the Radcliffe Infirmary at Oxford was obtained to take charge of all the cases, and the mischief did not spread beyond the two families first attacked. The only local cause to which the first attack could be attributed was the accumulation of foul rubbish already referred to under the bed of the first patient, already in an enfeebled condition; and from the statement made to me by the trained nurse there is little doubt that some of it was soiled with discharges from her person. The second person to fall ill was the monthly nurse attending on her, who was naturally the person most exposed to the infection, the excreta up to this time not having been disinfected; next came the husband, and the same order of attacks obtained at the nurse's own cottage, to which she returned on falling ill. These facts, taken together with the statement made to me as to the condition of the room and the fouled clothing, seem to point to the cause of the outbreak as having been of an intensely local character, and apparently limited to this one room.

The only other fatal attack of enteric fever was one of a child of about four years of age at Drayton Mill, where the only marked sanitary fault was a very polluted water supply; the father was also attacked but recovered, and a new well was provided.

At Drayton, nearly a whole family was attacked with pneumonia of a typhoid type, the water supply being again found grievously at fault, there being no other marked sanitary defect; and later on in the year another case of distinct "enteric" occurred in the same village under somewhat corresponding conditions. There was also a case reported at the sewage works, Sandford-on-Thames, the patient, a child, living at a cottage close to one of the sewage distributors, and the water supply being considerably polluted. In all these instances the precautionary measures adopted were successful in stopping the spread of infection.

Diphtheria has only been once reported, at Nuneham Courtney, and the premises here were in good sanitary condition except as to water supply, which was much polluted, the locality itself being also damp and shut in by trees.

Whooping cough first appeared at Sunningwell in May, and one death ensued, next in Sutton Courtney, where some dozen or more cases were reported, and four proved fatal; and towards the end of the year there were about the same number of attacks at Drayton with three deaths.

The number of cases of pauper sickness returned during the year was 592, and 105 of these were children under five (see Table II.) Seven attacks of scarlet fever, four of enteric fever, thirteen of diarrhœa (as against fifty in 1881), and about fifty each of whooping cough and of lung inflammations were included among them.

As regards the total mortality, 218 (corrected for the Urban proportion of the deaths in the Union House), the numbers are nearly the same as in 1881, and the death rate, 16·1 per 1000, slightly under the rate of that year; but there was an appreciable rise in the "zymotic" death rate, from 1·4 to 1·8, on account of the increased fatality of whooping cough, the rate for consumption being 1·5, and for lung inflammations 3·2, the corresponding percentages for each disease of the deaths from all causes being 8·8, 9·7, and 19·9 respectively.

The births registered were 415 in number, and equal to a rate of 30·6 per 1000, which, like the death rate and other rates for the year is about the same as the mean for the entire sanitary combination. The percentage of corrected deaths to the births is therefore 52·5 %, and of deaths during the first year to births 9·4, while nearly 18 % (39 deaths) of the entire mortality occurred under one year of age, and 31 % (68 deaths) under five—90 deaths, or a little over 41 % were of persons above 60 (see Tables III., V., VI.), so that nearly three-fourths of the year's deaths were of persons at the two extremes of life, and but little more than a quarter between five and sixty years of age.

ABINGDON URBAN SANITARY DISTRICT.

Inspector of Nuisances, Mr. George Winship.

DURING the year 1882, 640, or about half the houses in this district, have been inspected, only 17 actual nuisances having been discovered, of which all but two were removed without even a formal notice being required. They referred almost entirely to houses in a dilapidated state, or to animals improperly kept.

The extension of the new water supply, and the replacing thereby of the dangerously polluted shallow wells, still in general use throughout the district, is a matter which I have again thought it necessary to lay before the Sanitary Authority, and especially as regards the Courts in the town, where one or two pumps (which so far as analyses have been made, furnish without exception extremely impure water) have to serve several houses for drinking and all domestic purposes, and where also there is absolutely no supply whatever to the closets other than such flushing as may be given by throwing down a pailful or so from time to time. I quite admit that as a whole the closets in question are exceedingly well kept under the circumstances; but in several instances I found them more or less foul, and they certainly cannot be considered to be in a reasonably safe and wholesome condition while no proper and regular flushing arrangement, with a sufficient water supply, is provided for them; and in my judgment, the main reason why they have not been more frequently found to occasion injury to health is simply because they are for the most part placed out of doors, and without any communication with the interior of the houses.

In the course of the year I have analysed samples taken indiscriminately from five of the courts. All of them were largely fouled by sewage, and three of the number excessively so. One sample also examined was taken from a private

residence, and this proved to be equally polluted; in fact I have no hesitation whatever in repeating the opinion that I have so often expressed already, which is based on the average results of the analyses I have made since 1874, as well as on deliberate consideration of the general circumstances of the case, that the ordinary well water used throughout the town is as a whole so far polluted as to be unwholesome, and unfit for drinking purposes, and that by far the most important sanitary improvement still remaining to be carried out in the district is the bringing about its entire discontinuance, and the substitution in its stead of the new and thoroughly good supply furnished from the mains of the Corporation, the charge for which has now been so much reduced that there appears to be little ground for complaint on that score. The Inspector reports 48 fresh services laid on during the year, which is about the same number as in 1881, and brings up the number of houses thus supplied to 168, or something more than one in ten of those in the municipal area; but the courts still remain as before in this respect, and the total I have named represents a proportion which I cannot consider at all satisfactory, or as in any way coming up to the sanitary requirements of the district.

The new sewerage is now in full working order, and although from time to time a few complaints are made of smells coming up through the ventilating openings in the sewers—which I have myself noticed in some instances—the annoyance may be reduced to a minimum by due care in keeping the sewers well pumped out, so as not to allow sewage to accumulate in them; and by effectual and frequent flushing, by which deposit in the sewers is prevented and their interior is kept thoroughly clean: attention to these two points forms the main security against either offence to the senses, or danger to health arising from any such cause.

Smells coming from the house drains have also called forth some complaints; these have mostly arisen from their imperfect ventilation or flushing, or from defective and worn-out soil

pipes or other parts of the sanitary fittings of the houses where they occurred—the slaughterhouses, bakehouses, dairies, and piggeries are reported by the inspector as generally in good condition, and the scavenging has been regularly carried out thrice weekly throughout the principal part of the town—I have myself verified these statements from time to time and am of the same opinion.

The state of the court in Bury-street, which has on previous occasions been reported on, was again made the subject of special report to the Authority early in the year, and I recommended that the houses should be closed as unfit for habitation, unless they were thoroughly cleansed, reinstated, ventilated, and improved in their general sanitary arrangements. The owner ultimately consented to carry out in the main the requirements I laid down, and they have accordingly been put into a fairly satisfactory condition, except as to the water supply, which has not yet been altered as I advised.

Complaints in reference to the Barley Roasting Works, in Ock-street, referred to in the report for last year, have again been made, and ultimately a summons was taken out, which led to some alterations being carried out in the arrangement of the works.

Complaint was also made to me relative to repeated attacks of illness occurring in a family living in Thames-street, which were believed to be due to faults in drainage, where one of the old drains running directly in front of the house had been cut off, and partly filled in. By my advice, the drain in question was opened up for a considerable distance, and though practically empty, it was found to have a dead end, which I advised should be completely filled in—I examined a sample of the surface water that trickled into it, and it was found to be tolerably free from impurity. On examination of the premises themselves, the principal defects were ascertained to be due to rat runs under the basement flooring, which I advised should be entirely laid open, well concreted and made good.

Two of the lodging houses in the town have also been inspected and reported on—one was clean and in fair order, but somewhat over-crowded with beds—this was remedied. The other was in an exceedingly bad and dirty state, and I advised that it should be closed unless it was put into proper condition as regards cleanliness, repair, and drainage, which has since been carried out.

There has been no serious outbreak of any zymotic disease during the year, excepting some amount of whooping cough in the autumn, which caused five deaths of infants; and in the pauper sick returns (see Table II.) which includes 117 cases, of which 26 were of children under five years of age, the only attacks of illness of this class were 13 of diarrhœa, 6 of whooping cough, and one each of scarlet fever and of enteric fever. There were, however, a few cases reported of scarlet fever among children in a better position, and two proved fatal—one being in a house where the closet, though well kept, had no water laid on, or proper means for flushing. The necessary precautions were taken to prevent the infection from spreading, and with success. There were also three deaths of infants a few months old from diarrhœa. This comprises the entire zymotic mortality of the twelvemonths, but one non-fatal attack of enteric fever was reported in a cottage in the Vineyard, where also the closet (common to several houses) had no proper flushing arrangement, and the water supply for general use was from a pump immediately behind it, though the well itself was some little distance away.

The entire deaths for the year were 87, being two more than in 1881; adding to these the deaths in the Union House, of persons previously living in the Urban District, we get a corrected total of 93, equivalent to a death rate of 16·4 per 1,000, which though moderate in itself, is rather above the mean rate of the year for the combination, and 1 above that of the district in the year preceding.

The births numbered 169, with a rate per 1,000 of 29·6, and

a corresponding increase of 1 on that of last year (see Table V.).

The number of "corrected" deaths from zymotic diseases was 10, from consumption 10 (three fewer than in 1881), and from lung inflammations 11, giving the respective death rates per 1,000 of 1·7 and 1·8, and the corresponding percentage proportions of deaths from all causes of 10·8 and 11·8 (see Table VI.)

The deaths under one year numbered 18, and under five years 30, giving percentages of those at all ages of 19·3 and of 32·3 respectively, while those among persons above sixty were 41 in number, or 44 % of the whole, leaving less than a quarter (23·6 %) as the proportion occurring between the ages of 5 and 60, a lower ratio than that of any district included in the combination during the year (see Table III. The percentage to registered births of the deaths of all ages and of those under one year was 55 % and 9·4 % respectively.

WALLINGFORD RURAL SANITARY DISTRICT.

Inspector of Nuisances, Mr. Abraham Withers.

The Inspector's return for the year 1882, shews 814 premises as inspected, and 42 ordinary nuisances discovered and reported to the authority, in addition to those of a minor character which were remedied at once in compliance with his request. The details will be found in Table VII.

The most important matter brought by me under the consideration of the Authority has been that of obtaining Urban Powers, and of settling Bye-laws for the regulation of new buildings at Didcot New Town, in East Hagbourne parish, near the Didcot Railway Station. This question was referred to in the report for 1881, and the amount of new building of a very objectionable character, which was begun towards the

end of that year, and the proposed rapid extension of similar operations during the year under review making it a matter of urgency, it was resolved to make immediate application to the Local Government Board for additional powers in accordance with my report ; these were granted, the Bye-laws settled, and at the close of the year they only awaited the final approval of the Central Authority to be put in force.

At the village of East Hagbourne, complaint was made to me of the effluvium escaping into the road, close to the National Schools, from the road gratings of the drains, which, originally intended only for surface water, had gradually been more or less directly utilized for slops, &c.; the provision of properly trapped gullies was advised, but has not been carried out as yet, although some little improvement was effected ; my attention has also been called to the bad drainage of a block of cottages at North Moreton, where the backs of the tenements were exposed to soakage of sewage, in part coming from gardens on a higher level ; the necessary works were carried out. The state of the pond and ditches here has also again been brought under the attention of the Authority, and there is no question but that in summer and autumn, the state of matters is not only very offensive, but also prejudicial to health ; but on this question, as on that of the drainage of farmyards, the alleged necessities of the practical farmer too often come in conflict with the undoubted requirements of the sanitarian, and of the public health, so that it is often a matter of no little difficulty to bring them into harmony ; and in fact the condition of many of the farmyards, and of the ditches (and consequently of the streams and watercourses of the district), especially in this parish, in Warborough, and in Dorchester, is not by any means satisfactory, or what, in my opinion, it ought to be.

Taking the district as a whole, the houses are in fair order as regards cleanliness and ventilation, there is little overcrowding, and the state of the water supply is passable as regards the grosser kinds of pollution ; while although cesspits or vault

closets are still in very general use in the old cottages in cases where they are at a tolerable distance from the dwelling and well, much more attention is paid to keeping them inoffensive than was formerly the case; and where they stand near the house they are generally used with ashes or earth, thus converting them into modified dry closets. Where new ones are put up, earth—or pail closets are required.

Four samples of water have been submitted to analysis; one from a farm house at Cholsey was thought to have given rise to illness in the family using it, but on analysis I found it of very fair quality; of the remaining three, two were of somewhat doubtful character (one of these being from the house at Long Wittenham, referred to later on, in which two serious zymotic outbreaks occurred) and the other was exceedingly bad. Wells were cleansed or a fresh supply obtained.

The amount of serious zymotic illness in the district during the year has been very moderate, and its fatality almost confined to measles and whooping cough in the eastern parishes: eight deaths having been caused by the first-named, and twelve by the latter during the spring and early summer months. A few cases were reported in January of diphtheria at Long Wittenham in the concrete buildings, a row of tenements the sanitary arrangements of which are decidedly above the average, being of comparatively recent erection, and belonging to one of the Oxford colleges. The immediate neighbourhood was, however, almost in a state of flood at the time, as it closely adjoins the Thames. A couple of months later a case was reported in the main street of the same village, and also at Didcot, at a cottage built in a low damp locality; neither attack proved fatal.

Scarlet fever appeared in the district several times, but did not spread to any extent, nor was any death due to it; the first cases were at a house in Long Wittenham, where during the last few years there have been repeated outbreaks of some form of zymotic disease—small pox, diphtheria, measles, and

now in the present year, scarlet fever, and later on, enteric fever. The house itself, though old and smelling somewhat close and musty, is kept remarkably clean, the closet (a vault one) is detached and kept with scrupulous cleanliness, and there is no drain connected with the interior of the dwelling so as to expose it to the risk of the entry of foul air from any such source. I have already referred to the analysis of a water sample from the well. There were also a few cases at a cottage in the concrete buildings in April; in August, at Roke; in March, the complaint appeared at North Moreton; in November, at North Stoke; and in December at Cholsey. In each instance the attacks were few—limited to one or two families and non-fatal. In only one or two cases was it found possible to account for the outbreak. The strict precautions taken to prevent infection from spreading were fortunately successful.

The cases of enteric fever reported during the year have been exceedingly few, and with one exception non-fatal. I have already referred to the attack at Long Wittenham. In August an isolated case occurred at a cottage at Woodcote. There was no kind of history of infection from a previous case, the patient had been recently confined, and this illness followed closely on the shock of hearing of her brother's sudden death by accident. It is stated by the medical attendant that it ran on into distinct typhoid. The cottage, entirely on the ground floor, was a poor one, and rather overcrowded as well as imperfectly ventilated, the privy was over a ditch, and the only water supply from rain tanks or ponds, one within 30 feet of the privy; the attack ended favourably. Another case at the end of the year occurred at Cholsey, and had a fatal termination.

The number of new cases of pauper sickness reported during the year was 104, of which 24 were of children under 5; the only zymotic attacks among them were 18 of whooping cough and 5 of measles.

The gross amount of mortality during the year was 222; of

this number 62 deaths were those of lunatics in the County Asylum at Moultsford, almost entirely from chronic diseases. Excluding these from calculation, and adding to the remainder 17 deaths in the Union House of persons previously living in this district, we have a corrected total of 176, which gives a death rate of 15·5 per 1,000 of the estimated population: satisfactory in itself, but an increase of ·8 on that of 1881.

The births numbered 348, and were at the rate of 30·7 per 1,000, the percentage proportion of deaths at all ages to registered births being therefore 50·5 % and of deaths under one year 9·4 %.

I have already referred to the zymotic mortality (see Table IV, Sheet F) which was limited to the diseases I have mentioned and two cases of Diarrhœa in the aged.

It was at the rate of 2·2 per 1,000 of the population, and amounted to 14·2 % of the mortality from all causes. The corrected ratios for lung inflammations were the same, and those for consumption (9 only in number) were respectively ·8 and 6·2 %.

As regards the ages at which deaths occurred, 32 were less than a year old, and 64 were under five years of age, while 67 were above 60, the corresponding percentages of the mortality at all ages being 18·1 %, 36·4 % and 38·1 % respectively (See Tables III, V, VI).

WALLINGFORD URBAN SANITARY DISTRICT.

Inspector of Nuisances, Mr. S. Goldsmith.

DURING the year 1882 the Inspector reports nuisances as discovered on 78 premises visited by him, mostly of foul closets and drains, which were abated as regards all but 22 without formal notice (see Table VII.); and he states that as the

existing cesspits are cleansed they are for the most part converted into earth closets, the scavenging of which is done at the expense of the occupiers. Some surface drainage has been carried out at the foot of the bridge and in St. Mary's-street, but no other drainage work has been taken in hand during the year, except with reference to a complaint which I enquired into consequent on the cutting off of the drainage from a part of the "black ditch" referred to in my report for 1881. I found that there was some escape of foul air from the blocked-up end of this drain, where it passed under a house in the High-street, and I reported to the authority on the matter, advising that it be laid open, thoroughly cleaned out, and filled in solid, the drainage of the two or three premises that were found to be still connected with it being otherwise dealt with pending the settling and carrying out of a proper plan for disposing of the general sewage of the town, the necessity for which was again urged.

Four samples of drinking water have been submitted to analysis by me, of which three were taken at my request from the public pumps. All were more or less polluted, and three to a large extent. I reported also on this subject to the Authority, calling attention to its importance, and pointing out that while no infectious cases had been reported, and there had been an admitted absence of zymotic mortality (with the exception of three adult deaths from diarrhoea in the Union House, of which two belonged to the Rural District) the general death rate was unusually high, and was so far an indication of a poor condition of the public health.

The number of new cases of pauper sickness entered in the clerk's return was only 13, and there were none of any zymotic disease.

The births registered during the year were 86, and the gross number of deaths 81. Deducting from these last 15 deaths in the Union House and Cottage Hospital of persons previously living in the Rural District, we have a corrected number of 66,

giving a percentage proportion of deaths to births of 76·8, and a death rate of 24·9 per 1000 of the estimated population of the district; which rates are more than half as high again as the mean of the entire combination for the year. I do not lay too great stress on these figures, as the district is a small one, and the numbers are to some extent exceptional, while a comparatively small addition to the actual amount of mortality, of necessity materially affects the calculated rates; nevertheless, taken in conjunction with the fact that consumption proved fatal at the rate of 3 per 1000 (causing one in every eight of the “corrected” number of deaths registered in the district during the year), and with that of the occurrence of nearly 29% of the entire mortality, at the most valuable ages, viz., between 25 and 60,—such ratios cannot be overlooked in estimating the general condition of the public health of the town, and the share which defective sanitary conditions may have in accounting for it.

The zymotic death rate for the year was ·4, and that for lung inflammations 1·5. The births, 86, were at the rate of 32·4 per 1000. The deaths under one year numbered 6, giving a percentage to births of deaths at that age of 7%. Those under five years were 12, and those above sixty 30 in number, their respective proportions of the deaths at all ages being 9·1, 18·2, and 45·4 (see Tables III., V., VI.)

BRADFIELD RURAL SANITARY DISTRICT.

Sub-district I.—Inspector of Nuisances, Mr. W. E. Bunce.

Sub-district II.—Inspector of Nuisances, Mr. J. Ford.

IN No. 1 sub-district the Inspector reports 687 premises as visited, on 263 of which nuisances were found, which were for the most part abated without formal notices being served; of

these 10 only were required, and legal proceedings have not been necessary in any instance. The returns given in Table VII. state the nature of the nuisances dealt with, which were in the main due to foul privies and drains, or to animals improperly kept; 7 houses were closed as uninhabitable, and earth closets were provided on 31 premises. Plans for twenty-six new houses were submitted to the Authority under the new bye-laws for the parish of Tilehurst, all of which were eventually passed, and the buildings have been properly carried out. I anticipate great ultimate benefit to this part of the district from these regulations for new buildings being steadily and systematically enforced.

I have submitted five water samples to analysis from this sub-district, and three from sub-district No. 2, all but one of which were sewage polluted to a serious extent. They had been taken on account of illness occurring where they were in use.

In the second Sub-district, 274 premises were inspected, and 235 nuisances detected, chiefly in Bradfield, Ashhampstead, Beenham, Bucklebury, and Goring villages. They were much of the same character as those just referred to, and were for the most part remedied at the request of the Inspector, only 18 formal notices to abate the same being requisite. Earth closets have been adopted on 27 premises, and 43 dilapidated or dirty houses have been put into proper condition. The inspectors of both sub-districts report the earth closets as being well attended to, and generally kept in a satisfactory state. My own observations confirm this statement, the contents being mostly used on the gardens.

At Whitchurch my attention has been directed to a block of four cottages, in which illness of a low type had occurred, which was attributed to the sanitary defects of the premises. The back yards were excessively confined, having a high wall and bank a few feet in rear of the buildings so as to impede ventilation and keep out light. Two large cesspits in this yard

received the contents of all the privies, as well as the whole of the house slops, and, being unventilated, the foul air was drawn direct into the houses through the back doors and windows. I advised the removal and proper filling in of the cesspits, the provision of earth closets, with proper arrangements for removal of the contents, as also of a covered wheeled tank for the slops, to be removed daily to the tenants' allotment gardens.

I have also reported on a group of old dilapidated cottages at Path Hill, Whitchurch, which were unfit for habitation, and which have been closed in accordance with my recommendation, others, belonging to the same owner, having been since put by him into proper repair, and provided with earth closets. At Harrison's-cottages, Mortimer, where very foul drainage from house slops passed into the ditch close to the tenements, I advised the taking up of the drain pipes, and the utilization of the stuff on the gardens, which were large and ample for the purpose. At Theale, further reports have been made on the ditch at the back of the north side of the village. I found the alterations carried out at the brewery in accordance with my advice, were satisfactory in preventing the entrance of sewage into the ditch, it being daily removed from the premises in a closely covered sewage cart; but above the point where the clean waste water of the brewery passed into it, the state of matters was still very unsatisfactory, other owners still allowing foul drainage, &c., to go to it, which I advised should be stopped forthwith.

At Bradfield, the escape of sewage into the stream from various premises adjacent thereto has been brought under the notice of the Authority, and I have advised that the question be taken up and dealt with without further delay.

The principal zymotic outbreaks of the year have been repeated ones of scarlet fever, occurring in various parts of the district, and several isolated appearances of diphtheria and croup. In none of them were the actual attacks numerous, since, as soon as they came to the knowledge of the sanitary

officers, the precautions necessary to prevent their spread were carried out by them with the greatest care and attention, so that although in some instances the complaint was of a very malignant type, infection rarely passed beyond the house first invaded, and even there for the most part the cases were few ; while wherever any business, such as that of a laundry, dairy farm, or the like was carried on, it was either entirely discontinued for the time, or carried on under such regulations as effectually prevented any conveyance of infection. The first reported cases occurred in July in a family living at Mortimer, and four out of five children were carried off by the complaint in three or four days. They had all attended a fête on June 26th, to which a large number of visitors came from Reading, where scarlet fever was then present. The first child fell ill on the 29th, and died in two days, the other three sickening on July 1st, and dying within three days. There had not been any other attacks either in the village or among the children attending the school ; there was not any special sanitary defect in their cottage or its surroundings, nor had there been any other known or probable exposure to infection. There was not any spread from these cases, but very soon afterwards, a case occurred in another family, which was traced to a fresh centre of infection at Reading, and again in August it was brought into the village from Taplow, causing another death. In this month it also appeared at Aldermaston, in a large house and a cottage in connection with it, the outbreak causing two deaths. It was probable that the complaint was brought back, as also in one or two other instances, by a lad returning by train from a school at a distance, but there had not been any illness at the school itself. Prior to information reaching the sanitary officers some of the children had been sent to friends living in another district of the combination, where they fell ill ; but the measures adopted at each place checked any further spread of the mischief. Subsequently attacks were reported at the following places :—In September, at Calcot-

row, where it caused one death; and at Theale, in a cottage, where laundry work was taken in (which was at once stopped), as also at Burghfield Common. Next it appeared in two other parts of Tilehurst, viz., at Harmour, and in the Oxford-road at a rag dealer's, then at Bradfield, and finally in November at Englefield, in two houses, one being a large farm, where, in addition to the measures ordinarily adopted, special precaution was observed to prevent any possible spread of disease by means of the dairy produce. The deaths were in all eight in number, and they occurred in the third quarter of the year. In none of the outbreaks just referred to did I consider it necessary to advise the closing of the schools, excepting at Mortimer, where they were twice closed for a short time and cleansed, in case infection might have been already conveyed there by the children first attacked, who sickened while at school. In all the other cases, the attacks being few and manageable, I considered it sufficient to prohibit all children from the particular family or locality invaded (as the case might be) from attending school until the complete recovery of the patients and the final disinfection of the premises, &c. Diphtheria, ending fatally, was reported in July, in a clean well-ventilated and isolated cottage at Anne's Cross, situated on the clay; there was no history of infection; the vault closet was twenty yards, and the water supply, from a spring in a copse, 70 yards from the premises. In August there was an outbreak of the complaint in a roomy old-fashioned farm-house between Tidmarsh and Englefield, standing on a damp slope adjoining the bed of a stream, the site though marshy not being liable to floods, no recent cattle disease of any kind on the premises the sanitary condition of which was fairly good, and no known exposure to infection. All the family had been to the Agricultural Show in Reading a few days prior to the attack, and two or three had it simultaneously, the others falling ill shortly after. All but one recovered. In November, there was another death from the complaint at Bradfield: the cottage

in which the patient lived was in a bad sanitary condition, and also situated on the clay. Besides these, there were two fatal attacks of a less distinctly typical character, at Burghfield; and seven deaths certified as croup occurred during the course of the year in various parts of the district. Enteric fever was only reported twice, on both occasions at Bradfield: one case terminated fatally, the supposed cause of the attack was the use of polluted drinking water, the supply of which was partly from a tank receiving surface drainage from a field that had been dressed with pig manure, and in part from a diphole in a copse filled with decaying leaves; both samples proved on analysis to be exceedingly impure. A new well has since been provided. Another doubtful attack was reported at a dairy farm near Reading, and as, in addition, the sanitary conditions were not good, the precautions ordinarily observed on such premises were enforced.

The amount of pauper sickness returned for the year was, as is usual in this district, exceedingly small. There were only forty-five cases in all, of which five were infants or young children.

The births registered were 597 in number, and at the rate of 33·4 per 1000 of the estimated population. The deaths were 240, which, corrected by the addition of 8 in Reading Hospital of persons coming from the district, gives a rate of 13·8, the lowest yet reached, and more than 2·0 per 1,000 below the mean rate for the year of the entire Sanitary Combination.

The total zymotic mortality amounted to 31, and was at the rate of 1·6. The deaths from consumption numbered 18, and from lung inflammations 42, with rates of 1·0 and of 2·4 per 1000, the proportion per cent. of the deaths from all causes due to each class of disease being 12·6%, 7·3%, and 17·1% respectively.

As regards the ages at death, 47 were infants under one year, and 76 children under five years old, while 83 were persons above sixty, the percentage proportions of total deaths

occurring at the respective ages were consequently 19·1, 30·9, and 33·8 (see Table III.), while the percentage of total corrected deaths, and of deaths under one year to the registered births was respectively 42·5 and 8·1 (see Table V.), these ratios being the lowest for the year in the whole of the combined districts.

COOKHAM RURAL SANITARY DISTRICT.

Inspector of Nuisances, Mr. G. Millin.

In this district the sanitary inspector reports 68 premises as visited during the year, and ordinary nuisances remedied on 24 premises (see Table VII). Some improvements in the drainage of houses and cottages at Hurley were also carried out in accordance with my advice, and 20 premises have been disinfected after infectious illnesses, of which there have been several outbreaks, although with the exception of measles and whooping cough, they were very limited in extent, and attended with small mortality.

The most important of them was one of small pox, the first two cases of which occurred at the beginning of the year, in Bray parish, but did not come to my knowledge till after the recovery of the patients. There was no spread of infection. Early in March, a young man came from Deptford to his father's house, at Hurley Bottom, while sickening for the complaint; he had it severely, but recovered. The usual precautions were carefully observed, including general revaccination of the other inmates of the cottage and of the adjoining ones, with the exception of the father of the patient, who was unvaccinated, and who resolutely refused to have the operation performed. His employment being shepherding, in a very out of the way and solitary place, I sanctioned his continuing it (under restric-

tions as to his going and returning) with the hope of lessening his chance of catching the complaint, which however he did, and the attack was fatal. No other case occurred in connection with these, unless the attack of a grocer's assistant, living in Maidenhead, to which reference is made in the report for that district, is thus to be accounted for, which is very doubtful.

Towards the middle of April, the disease appeared in Maidenhead, and there were several cases in the rural district which in fact formed a part of that outbreak. The first was that of a child removed from its mother's home in Maidenhead, where she died of the disease, to a cottage at Littlewick, where it fell ill, and was then removed to the infectious diseases ward at the Union house. At about the same time a farmer died after a very short illness at a house just beyond the Urban boundary, of what was certified to be a suppressed attack of malignant measles, scarcely any rash being apparent; the subsequent history however, proved it to have been really a case of small pox, as some six members of the family and other persons, who either lived in the house or had been in attendance there during the illness, were in due time attacked with the disease in its ordinary form. It was thus taken to three other houses, one of which was a dairy farm, and another occupied by a large family, but prompt and general revaccination, the temporary closing of the dairy as to sending the produce off the premises, with the provision of a trained nurse and all necessities where required, and careful observance of isolation and disinfection being carried out, no other cases occurred in the district, except a few among tramps in the Union house, which were dealt with as they arose by the medical officer, and to which I need not refer further.

Measles, and also whooping cough prevailed to some extent in different parts of Bray parish during the spring months, and three deaths were caused by each complaint. In one instance where there were some cases of measles at a laundry, I found mixed indiscriminately with the general linen received

from the customers, a number of infected things brought from houses at Windsor where the children had the complaint. I had the business stopped at once till the cases at the laundry were at an end, and the premises disinfected together with all the linen before it was returned to the owners. Scarlet fever was only reported on a very few occasions, and among the pauper sick one death was caused by it. The attacks occurred early in the year at Cookham Dean and Oakley Green, and in October at Waltham St. Lawrence, where the death occurred, the infection having been brought from a distance, where the child had been visiting.

A few non-pauper cases of diphtheria were reported, and three deaths were caused by it; one fatal attack was attributed to the smell from a very foul ditch and pigsty in a field where the child had been playing shortly before it was attacked, this was cleansed and drainage provided. In another instance the closet was offensive; both attacks were in houses situated on the clay. The remaining two were imported. The usual precautions as to disinfection &c., were carried out, and the complaint did not spread.

The pauper sick return for the year included 510 cases, of which 127 were those of children under five years of age. The details are given in Table II.

The deaths registered in the district were 117; adding to these 10 in the Union House, and 4 in the Maidenhead Cottage Hospital of persons previously residing in the Rural area, we get a mortality at the "corrected" rate of 14.9 per 1,000 of the estimated population. The births numbered 255, and were at the rate of 29.0, both rates being somewhat higher, and the death rate, 2.7 per 1,000, than in the preceding year.

I have already referred to the principal items of the mortality from zymotic diseases, there was also one death from enteric fever, and one from diarrhoea (see Table IV, Sheet I.) The death rate per 1,000 for these complaints was 1.5, or twice as high as that of 1881, that for consumption with 9 deaths being

1·2, and for lung inflammations with 15, 1·7, their percentage proportion of the deaths from all causes being 9·9 %, 8·4 %, and 11·4 % respectively (see Table VI.)

Both the percentage proportions borne by the deaths at all ages, and by deaths in the first year (23) to the registered births are somewhat less than the mean rates of the year for the entire sanitary combination being respectively 51·4 % and 9·0 % (see Table V.) The mortality under five years amounted to 35, being 26·7 % and that above 60, to 48, being 35·1 % of the whole.

MAIDENHEAD URBAN SANITARY DISTRICT.

Inspector of Nuisances, Mr. Thos. Nash.

The returns of the Inspector of this district show 158 premises inspected during the year, and ordinary nuisances abated on 98 of the number (see Table VII.) He reports the general state of the district as improved during the year, and matters of scavenging, and surface drainage and cleansing carefully and regularly attended to. Seven hundred feet of pipe drain have been laid for surface drainage in the Norfolk Park division of the town, but nothing has been done to extend the sewers proper either there or in the rest of the unsewered parts of the town, so that out of 61 new houses erected during the year in the district, only half could be connected with the sewers; and two-thirds of the remainder had no other method of sewage disposal than cesspits,—the remaining ten having earth or other dry closets. In view of the amount of new building, which is likely rather to increase than to diminish, this question of the provision of proper sewerage for the whole town is year by year becoming one of greater urgency and importance, and one which it will not, in my opinion, be wise to postpone.

Water services from the Company's mains have been laid on to 74 additional houses, making a total of 564 thus supplied to the end of the year. Three samples of drinking water have been analysed by me, one was very impure, the others passable. I have also advised as to the alterations necessary to prevent nuisance arising from tallow-melting on premises where the coppers were in such a condition as to allow offensive effluvia to escape. The required works were duly carried out. The proper storing of paraffin on the premises of a dealer therein has also been brought under my notice, and in accordance with my advice, a suitable separate building was erected for the purpose.

The outbreak of small pox which occurred in the spring (the first case being reported March 23) although limited to fourteen attacks, only two of which were fatal, has been the most interesting event in the sanitary history of the district during the year. The first person attacked was a grocer's assistant, who took out goods from Maidenhead to different places round about; among other localities on his rounds, he went to Slough, where the complaint had appeared about this time, a man who died on March 14th in the Union house at Windsor having been apparently infected there (see Report for that District.) He also went to Hurley, where a case was under treatment at the time, which had come down from London (see Report for Rural District.) The precise way in which this man (vaccinated in infancy) took the complaint, could not be made out; he undoubtedly delivered goods at this infected Hurley cottage, but said, that knowing of the illness there, he did not go up to the house, but simply put down the things at the gate; though on the 10th March, he saw one of the family in the road, and on the 17th, the patient himself (then convalescent) at the gate, this last could hardly have been the date of infection, the case being reported on the 23rd. He was treated by his own medical man at home, the remainder of the family being revaccinated and all practicable precautions taken

as regards isolation. Seventeen days after, six cases occurred in rapid succession, two being servants and two occasional lodgers at a public house in the town; the remaining two lived in different localities. There was also in the Rural district a case just beyond the Urban boundary (See Rural Report). Of this series the last-named and one other proved rapidly fatal, but the precise channel of infection could not be made out.

Between April 14th and May 2nd, five other attacks were reported, when the last occurred, except those of a hospital attendant and an undertaker's man, who had been engaged with the patients. As soon as the second case was reported, arrangements were made for immediately removing each person who was attacked, and who would give consent, to the hospital huts, which were enlarged temporarily, a roomy convalescent ward fifty feet long being also provided, and a staff of three trained nurses, one cook, and two attendants engaged for the work. The usual revaccinations of other members of the infected families were carried out, and they were virtually quarantined for fourteen days, all necessities being provided for them: the rooms from which the patients had been removed were well disinfected with their contents, and all available measures adopted to stamp out the disease, which was practically at an end by the middle of May; though a single fresh case (that of a tramp at a common lodging house) was reported in July: this man was removed to the huts, where he died, and all necessary precautions being carried out, including the temporary closing the house to new lodgers, no other attack occurred. In all ten patients were treated at the huts with only one death. In connection with this matter I again reported to the Authority, pointing out the want of suitable hospital accommodation for such outbreaks, that which was provided being of a temporary character, and for the most part improvised on the spur of the moment, at considerable expense. With the view of making the provision advised by me, the convalescent hospital at Ascot was visited, one of its wards,

made of galvanized iron, being for sale, but it did not appear to be altogether suited for the purpose, and ultimately the inspector received instructions to prepare a plan for a proper permanent building, in accordance with my recommendation, which he did, I advising fully as to the sanitary requirements and fittings necessary for the same. The plan was prepared accordingly, but the emergency having passed away for the time, no further action has as yet been resolved on.

Measles appeared in the district during the spring, and cases cropped up among the sick poor till August; only four deaths occurred.

Scarcely any scarlet fever was reported, and only one death.

The most fatal epidemic of the year has been that of whooping cough, which, commencing with the new year, caused thirteen deaths in the first quarter and five in the second, all excepting two being infants under eighteen months old, and for the most part living in the poorest, dampest, and worst drained parts of the districts.

Diphtheria has proved fatal in three instances, the first case occurring in a locality, the sanitary condition of which was at the time unsatisfactory, but which has since been provided with better drainage and water supply. In the next instance, the premises, though in a rather low situation, were exceedingly clean, without faults of drainage, and provided with an earth closet; there was no traceable history of infection, and the medical attendant informed me that at the same time he had a few other cases of more or less severity under his care, under nearly similar circumstances, there being no connection between any of them or any apparent cause either by way of infection or otherwise for the attacks; only one other fatal attack occurred at a cottage on Boyn Hill, it being the only case in the family.

Typhoid fever caused but a single death in the course of the year; this was at a house where the water supply had been very impure, and the drainage equally unsatisfactory. The

water from the Company's mains was laid on to the whole row of seven houses, and the drainage materially improved.

The new cases of pauper sickness reported numbered 512, of which 112 were under 5 years of age. They included four attacks of small pox, 37 of measles, 29 of whooping cough, and 16 of diarrhœa, but scarlet fever and enteric fever are entirely absent from the returns, and there were only four cases of consumption.

The births registered during the year numbered 244, and were at the rate of 29·1 per 1,000 of the estimated population. The total deaths were 178; of these 21 occurred in the Union house and 7 in the Cottage hospital, 17 of the number having previously lived in the Rural district or in other places. Deducting these from the return, and adding two of previous residents who died in the Reading hospital, we get a corrected death rate of 16·7 per 1000, and the deaths were therefore 66·4 % of the births, while owing to the fatality of whooping cough, the deaths under one year, 36 in number, bore the highest proportion to births—14·7 %—of any district in the entire sanitary combination for the year. The deaths under five were 54, and formed 34·4 % of the whole. Those above sixty were 45, or at the rate of 28·7 % of the total mortality (see Table III.) The corrected death rate for zymotic diseases was 3·4, for consumption 1·3, for lung inflammations 2·4; and their respective proportions of the mortality from all causes were 17·9 %, 6·8 % and 12·4 % (see Table VI.)

EASTHAMPSTEAD RURAL SANITARY DISTRICT.

Inspector of Nuisances, Mr. G. Slarke.

The returns of the inspector show that during 1881, 437 premises have been inspected in this district, and 119 nuisances discovered and abated (for details see Table VII.) mostly in

the parishes of Bracknell and Sandhurst, and at Crowthorn; special reports have also been laid by me before the Authority on the water supply of Bullbrook and of Sandhurst, and considerable improvements have been effected, 125 houses having been furnished with services from the mains of the Wokingham Water Company in the localities where they were available, and nine wells dug in other places. Earth closets have been adopted on 19 premises. Attention has also been called to the condition of a row of cottages behind the Ascot road, which I have advised should be closed on account of structural defects, deficient ventilation, and very bad closet and drainage arrangements. Proceedings were ordered, but ultimately they were postponed by the authority, on the owner's promise to keep them in better order, which he has to a certain extent carried out.

There have been several outbreaks of various zymotic diseases in the twelvemonth, measles and whooping cough appearing most frequently in the pauper sick returns, which during the year included 388 cases of illness of all kinds, 105 being those of children under 5 (see Table II.) About 50 attacks of measles were thus returned, mostly in Warfield and Winkfield, and 55 of whooping cough, principally in Easthampstead and Binfield, the deaths from measles were four in number, and those from whooping cough, mostly in Sandhurst, 6.

Small pox was reported once, one of the civilian servants at the Royal Military College, Sandhurst, being attacked in February. He lived in a cottage in the centre of the village of Sandhurst. On enquiry I found that there had been a previous case at the college, the patient being a man just returned from leave of absence, and who was sent to Aldershot, the second man taking his place but not being revaccinated as the soldiers were,—revaccination not being compulsory on the civilians employed there, as they are not under the medical regulations of the army. This man had been vaccinated in childhood but had bad cicatrices. The usual precautions as to isolation, disin-

fection and revaccination were carried out, a large family of children being removed to another cottage, and there was no spread of the complaint except to one child.

Only one attack of scarlet fever was reported during the year. This was in the family of an officer of the Railway Company, and at the station. He was temporarily struck off duty, and strict isolation being carefully carried out, no other case occurred.

Diphtheria proved fatal to five persons. The attacks were almost exclusively of one person in a family and limited to a single house; no history of infection from a preceding case being obtained except in one instance. The first attack occurred to a weakly youth living in a clean and well-kept detached cottage, near Brackwell railway station and close to the cutting, so that the site was exceptionally dry, and the natural drainage good; the sanitary arrangements were satisfactory, and water supply, which I analysed, fairly good. The illness was in this case attributed to the foul effluvium from a large quantity of swedes stored close to a field path along which the youth passed daily, and which had rotted. In September, a death occurred at Bullbrook from the disease, in the same locality where scarlet fever was fatal in the previous year; at that time the overflowings from the cesspits dug in the small gardens behind the cottages flowed into the ditch at their ends, causing a most dangerous nuisance; this had been remedied, but the cesspits themselves remained as formerly, and the water supply, mostly of rain water in indifferently constructed underground tanks, or else from the very impure stream adjacent was thoroughly bad and unreliable. I made a very careful inspection of the locality and analysed several samples of the drinking water, no one of which was wholesome. I also examined the supply furnished by the Wokingham Company, which I found exceedingly pure as regarded organic contamination, although it contained a large amount of perfectly harmless chlorides, derived from the strata yielding the water.

I therefore recommended the closing of the existing wells, and the substitution of the Wokingham water, which was adopted, and also the provision of proper sewerage for this part of the district, where in my judgment it is much required, the gardens being exceedingly small and altogether unfit for the use of "vault closets," or even of earth closets, unless the scavenging is properly provided for and not left to undivided occupiers.

The complaint broke out at Sandhurst shortly afterwards, in a cottage in a somewhat damp situation, having an unventilated cesspit, and a well the water of which was so impure as to be unusable. Three persons were attacked here and two died; another child, who had called at the house, also took the disease. No history of infection from any previous cases could be made out as regards the first patient.

A severe and typical but non-fatal attack of enteric fever occurred nearly at the same time in the neighbourhood, in one of a row of cottages, where the overflow from the cesspits, which were otherwise unventilated, passed into an adjoining ditch, and the well was so foul that it was nailed down, the tenants getting water from a neighbour who had a rather purer supply; or from a stream, which, coming from the moorland, traverses all this part of Sandhurst, being in considerable use for drinking and domestic purposes by the cottagers living near it, and, as it was stated, used also as a convenient carrier of refuse and foul slops by some of them. It undoubtedly received a good deal of land drainage, and I found it on analysis extremely impure, although I could get no direct proof of sewage passing into it. As regards the fever patient, a girl of 11, and a large water drinker, no history of infection could be made out. There had been no known case of the kind in the village previously; there was no milk supply, she had not been from home, nor had any visitors been to the house. I reported to the authority on the whole matter, again pointing out as I had in previous reports, that from the exceedingly porous character of the soil, percolation from leaky or soakage cesspits was

inevitable into any wells in the vicinity, and that while the natural water supply of the locality is exceedingly good, only one out of six samples taken by the inspector at my request for the purposes of the report was even passable, and urging the importance of abolishing all percolating cesspits, and of requiring the provision of pure and wholesome drinking water, either by sinking wells in places where such soakage of sewage could not occur, by the driving of tube wells, or by arranging for the extension of the Wokingham Company's supply to the village.

Two deaths only were recorded from enteric fever during the year, one being that of a soldier who came home ill to his father's house, and the second, an unhealthy boy of 15; this was an isolated attack occurring in a poor and very dirty family, living in a damp cottage at Bracknell, with a cesspit closet at a fair distance from it, the roof water being used for drinking purposes.

I have analysed sixteen samples of water, of which two were good and two of fair quality; the remaining twelve were very impure, seven of them being polluted to an extreme degree.

The recently adopted bye laws as to new buildings have been brought into operation, eleven houses having been erected in the Bracknell district, and 32, of which 19 are completed, with three buildings of the warehouse class, in the Sandhurst district. The district surveyors report that the plans were in conformity with the code, and in this, as in the other districts where these powers have been obtained and brought into use, a permanent and increasing improvement of the public health will be the result of their steady and systematic enforcement.

The number of births registered during the year was 330, being at the rate of 28·5 per 1,000 of the estimated population of the district; the total deaths numbered 175, and deducting 18 of lunatic patients at Broadmoor as not belonging to the district, we get a corrected death rate of 15·5, which is a little under the mean rate for the entire sanitary combination

I have already referred to the majority of the deaths from "zymotic" diseases; in all they were 20 in number, and at the rate of 1·7 per 1,000; those due to consumption and to lung inflammations (excluding Broadmoor) being at the respective rates of 9 and 2·1. Their relative proportions of the mortality from all causes are therefore;—zymotics, 12·8% ; consumption, 7·0%, and pulmonary inflammations, 15·3%.

The proportion of "corrected" deaths to births was 47·6%, and of deaths under one year (of which there were 37), to births 11·2%, while 23·6% of the total mortality occurred at this age, and 34·4% (or 54 deaths) under five years. Above 60 the deaths were only 45 in number, giving a percentage of 28·7% of those at all ages; thus 48·5% of the entire mortality was among persons between the ages of 5 and of 60, a proportion considerably higher than the mean of the combined district, and so far showing a relatively larger expenditure of life at these, the more active periods of growth and maturity, than at those of early childhood or of decay.

WINDSOR RURAL SANITARY DISTRICT.

Inspector of Nuisances, Mr. P. J. Byrne.

In this district the inspector's return for the year shows 380 premises visited, and 190 nuisances detected. 40 of which required formal notices to be served, and in 5 instances legal proceedings to enforce the same; convictions were obtained in every instance. The general sanitary condition of the district is in many ways considerably improved so far as the condition of individual premises is concerned, but the state of the drinking water of much of Clewer, Dedworth, Old Windsor, Egham and Sunningdale is still very unsatisfactory, and in some of these

places it has been brought specially under my attention on account of the occurrence of zymotic disease in connection with its use; nor can any real or radical change for the better be looked for while the localities in question remain dependent for the chief part of their supply, either on a dirty pond in the middle of the village, as at Dedworth, or on shallow wells sunk in the Thames gravels, &c., pretty often in proximity to the closet cesspits. The obtaining of a really good and reliable supply by means of waterworks, whether carried out by the authority, or by a company, would be one of the greatest boons that could be conferred on the district, and at Egham, the works of the Sunningdale Water Company have made sufficient progress for a supply to be furnished in some places, but, as I understand, not from their own borings, which were not yet complete at the end of the year.

As regards sewage disposal, cesspits still remain the chief and principal resource of the majority of the inhabitants of the district, especially as regards the more modern cottage tenements built before the adoption of the revised bye-laws, where the garden ground was far too limited for earth closets to be practicable, unless there were proper arrangements for the regular scavenging of the same either directly by the sanitary authority, or at any rate by its order and under its supervision.

The older cottages have as a rule larger gardens, so that with them the contents of the earth closets can be disposed of without so much difficulty; and again as to those built within the last year or two, the regulations of the revised bye-laws are such that if properly and thoroughly carried out the worst evils of even the cesspit system would be to a great extent got rid of.

At Clewer there is however a system adopted and in common use in the class of tenements to which I have just referred as built before the passing of the bye-laws, to which I have often called attention as one attended with very considerable risk. It is that of flushing the closet drain by a pipe leading directly into it from the scullery sink, thus bringing the interior of the

house into continuous communication with the cesspit, there being neither disconnection outside the house, ventilation of the pipe, or even reliable trapping. In my opinion the continuance of any such arrangement should not be in any way countenanced by the authority. So far as new houses are concerned, the bye-laws render it impossible, and in the Arthur-road, Clewer, not only have they been carried out in these respects, but the sewage is received into the Urban sewers; and further, the road, and the floors of the cottages are all raised above the flood level, thus effectually securing them from the damages which the frequently recurring floods of late years have from time to time caused in that neighbourhood.

One hundred and twenty buildings have been erected during the year, of these twenty were not in conformity with the bye-laws in various respects, as some of them were supposed to be exempt from their operation as being built on crown lands. This question being now settled in the negative, the necessary alterations are being made, and the remaining cases are still under the consideration of the authority.

I have found it necessary to certify as to certain premises at Virginia Water, and also at Clewer New Town where a case of small pox occurred, as being unfit for habitation on account of general foulness, deficiency of sanitary requirements, and dilapidation. They were therefore closed for a time, but have been re-occupied on the carrying out of the necessary works.

The water supply of part of Old Windsor has again received attention on account of the occurrence of several cases of enteric fever, as well as of other zymotic diseases during the summer. Several wells were closed on account of the foulness of the water, some of which was so offensive as to be unusable; most of these were near the junction of the Datchet and Old Windsor-roads, and in proximity to the main outfall sewer of Windsor, which at that part is unquestionably leaky and permits sewage percolation, and there were also evident likely sources of pollution on some of the premises examined; however, a tube

well specially driven to avoid any probability of such contamination also yielded a supply of a very unsatisfactory character.

Complaint having been made by various residents at Old Windsor to the Authority, and to the Local Government Board, as well as to myself, of nuisance alleged to arise from the sewage works of the Windsor Urban Authority, at the Ham, I made a minute inspection of the same without notice on two different occasions, and took samples of the sewage in various stages, and of the effluent, which I submitted to examination, reporting fully on the matter to the Authority to the effect that the actual treatment of the sewage did not give rise to any appreciable nuisance; but that at the tumbling bay near the bridge, and in the pumping up of the residual sludge, due care was not shown, or the requisite precautions taken to avoid causing a nuisance to the persons complaining, especially under certain conditions of temperature and of wind.

Proceedings have been taken against owners of property in Hummer Lane, Denham Road, and Strode Roads, Egham, for nuisances arising from accumulations of mud and refuse, and from pools of stagnant water in front of the houses arising from the roads not having been properly made up. Convictions were obtained, and the work has since been carried out to a certain extent; but no drainage having been provided to take away the surface water, it still accumulates in stagnant pools at times, and helps to render the locality unhealthy.

With the exception of the serious epidemic of measles at Clewer, which, commencing towards the close of 1881, continued up to the end of January of the year now under review, there has been no very extensive outbreak of zymotic disease; and the returns of new cases of pauper sickness (see Table II.), which however are not complete, covering only about three-fourths of the year contain very few (15) entries in this class, out of a total of 126 of all diseases, 22 of which referred to children under five years. Fifty-five certificates, notifying attacks of various complaints of this class have been received

from medical men practising in the district in accordance with the arrangement made by the Authority. I summarize them as follows:—

	Measles	Scarlet Fever	Diphtheria	Erysipelas
Egham and Thorpe	5	10	1	1
Clewer & Dedworth	8	6	...	4
Old Windsor, &c...	16	...	4	...

A few isolated small pox cases have come to my knowledge: the first, a fatal one, was a tramp admitted into the Union House, having been for the previous fortnight working and sleeping at Slough; the sanitary inspector of that district was informed of the particulars. The next was a lad also employed at Slough (where the complaint was said to have been present some little time), but living at Clewer New Town in one of a row of cottages in a most foul and dilapidated state; these were closed as already stated, till put into comparatively decent condition—healthy and satisfactory such buildings never could be made. The lad recovered, and the disease did not spread. The third case was fatal, and was, in default of proper hospital accommodation, taken into the infectious diseases ward at the Union House; the patient was the son of a gardener at Sunninghill, and had walked across from Epsom with the disease out on him. I again reported to the Authority on the great want of a suitable hospital for the treatment of such cases as the last two; but, pending the decision of the Urban Authority on the same question, nothing definite was settled.

I have already alluded to the measles outbreak at Clewer and Dedworth, which caused 16 deaths in the month of January, out of a total of 21 for the year. Commencing during the previous autumn in the town of Windsor it spread into Clewer, then to Clewer New Town and Dedworth, attacking a very large proportion of the young children of the invaded localities;

by the end of January it almost disappeared from this part of the district, but spread westwards to Old Windsor, and towards Fifeild, Holyport, and Bray, and on to Maidenhead, as mentioned in the Reports on those sanitary districts. This complaint is one which it is difficult to deal with in the way of sanitary precautions; the schools were kept closed till it was at an end; disinfectants were used and cautions given as to isolation of infected persons and the avoidance of exposure; but the general popular notion as to the certainty that all children will have it, and that it is as well to get it over, is one that it is hard to eradicate or to overcome. In the autumn it broke out at Cheapside, Sunninghill, and was diffused through almost all the neighbourhood, nearly all the children, susceptible to the infection taking the complaint, four of whom died; of these, three were in one family, and were certified as complicated, two with diphtheria and one with lung inflammation. These premises were on the slope of the hill; the cottage, low, damp, and confined; it was also ill-ventilated and out of repair; the sink in direct connection with the cesspit, and blocked; while the well was at a lower level and in a position to receive soakage both from it and from those of two houses above. I found on analysis that the water was extremely impure. The owner had the well cleaned out, the drainage altered, and the cottage repaired.

Isolated attacks of scarlet fever and of diphtheria have been reported, principally at Egham and Clewer; two deaths occurred from each disease at Egham, and two more from the last named in different parts of Old Windsor, where there were a few cases at the same time as those of enteric fever already mentioned. Two attacks of enteric fever proved fatal to residents in Egham, and one death of a person aged 73 was certified as due to a combination of maladies, including "enteric fever, torpor of intestines, chronic gastritis, and gradual decay." Five deaths, all but one—infantile, were recorded from diarrhœa, and thirty-one from phthisis, of which five were of persons

dying in the Union House or St. Andrew's Hospital, and belonging to the Urban District or to other places.

The births registered during the year were 662, being at the rate per 1000 of 32·9. The gross number of deaths was 326, including 34 in the Union House and 7 in St. Andrew's Hospital, 29 of which belong to the Urban or other districts. Excluding these from calculation, we have a corrected rate of 14·8 per 1000, which is five in excess of that of 1881, but is below the mean rate of the year for the sanitary combination.

The percentage rates of "corrected deaths" to births was 44·8%. The corrected death rate per 1000 for zymotic diseases was 2·3, for consumption 1·3, and for lung inflammations 2·4, their respective percentage proportions of the deaths from all causes being 15·5%, 8·8, and 15·8.

Sixty-one deaths of infants under one year were recorded, and 108 were less than five years of age, being 20·5% and 36·4% of the mortality at all ages respectively. The numbers dying between 25 and 60 and above 60 were the same, viz., 80, being at the rates of 27% of the whole. This shows a relatively high percentage of deaths at the younger ages, as will be seen on reference to Table III., the proportion to total mortality of the deaths between 25 and 60 being the largest, with one exception, of any district in the Combination, and more than five per cent. above the mean rate of the whole.

TABLES
OF
STATISTICS,
1882.

BERKSHIRE COMBINED SANITARY DISTRICTS. 1882.

TABLE I.

* The Registration Districts thus marked correspond with those of the respective Rural Sanitary Authorities.

** Including Cookham and Maidenhead.

† In the columns marked thus (†) the number of Inmates and the deaths in the Public Lunatic Asylums have been altogether excluded from calculation ; those in Union Houses are distributed in the respective Districts according to previous residence.

REGISTRATION DISTRICTS and Sanitary Districts.	Census 1881.			Corrected esti- mated Population of Sanitary Districts 1882. †	Births Registered 1882.	Corrected Deaths, 1882. †	Corrected Death Rate per 1,000 living.								
	Area in Acres.	Inhabited Houses.	Total Population.				1874. †	1875. †	1876. †	1877. †	1878. †	1879. †	1880. †	1881. †	1882.
NEWBURY §	42,956	4,692	21,326	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Including { Newbury Rural Sanitary Dist..	.....	2,516	.....	11,286	301	196	19·7	24·2	16·7	19·6	19·7	16·5	16·8	16·5	17·4
„ Urban Sanitary Dist..	.....	2,176	.....	10,125	349	182	18·8	19·0	18·2	19·4	22·1	18·3	20·6	17·0	17·9
HUNGERFORD*... ..	98,287	4,054	17,795	17,601	568	300	15·4	19·2	16·1	16·5	17·7	17·6	16·6	16·0	17·0
ABINGDON §	58,284	not stated in returns	19,297	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Including { Abingdon Rural Sanitary Dist.	.....	„	.....	13,541	415	218	17·9	19·9	16·7	17·2	18·3	18·8	16·6	16·2	16·1
„ Urban Sanitary Dist.	345	„	.....	5,718	169	93	21·2	22·2	21·4	23·2	22·1	22·1	17·8	15·4	16·4
WALLINGFORD	40,860	3,027	14,392	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Including { Wallingford Rural San. Dist...	40,456	2,467	.....	11,348	348	176	17·8	19·5	16·0	15·8	17·0	20·6	18·4	14·7	15·5
„ Urban San. Dist...	404	560	.....	2,667	86	66	18·7	20·6	16·5	16·0	22·3	21·4	17·2	15·7	24·9
BRADFIELD*	62,166	3,608	17,972	17,845	579	246	16·5	17·8	15·7	16·3	15·8	18·0	17·8	15·2	13·8
COOKHAM** §	29,492	3,397	16,934	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Including { Cookham Rural Sanitary Dist.	2,693	1,848	.....	8,800	255	131	16·2	18·9	15·1	16·2	17·3	18·1	15·1	12·2	14·9
„ Maidenhead Urban San. Dist ..	2,560	1,549	.....	8,391	244	162	12·7	20·8	14·8	17·2	15·5	17·5	14·0	12·7	19·3
EASTHAMSTEAD*	25,176	2,255	12,664	11,603	330	157	11·1	14·9	10·6	12·7	14·3	13·3	14·7	12·8	15·5
WINDSOR (Part of*)	20,152	3,675	19,517	20,104	662	297	14·5	18·0	18·8	16·1	17·5	14·8	17·2	14·3	14·8
(Combined Districts.) TOTAL...	377,373	.....	139,897	139,029	4,306	2,224	Mean Rate 17·2	19·6	16·3	16·7	17·7	17·5	16·9	14·9	16·0

BERKSHIRE COMBINED SANITARY DISTRICTS. 1882.

TABLE II.

Return of Pauper Sickness in Sanitary Districts for the year ending December 31st, 1882.

NAMES OF SANITARY DISTRICTS.		NEW CASES OF SICKNESS, IN PERSONS BELONGING TO THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE.																					
			Small Pox.	Measles.	Scarlatina.	Diphtheria.	Croup (not spasmodic).	Whooping Cough.	Contind Fevers.			Diarrhoea and Dysentery.	Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Chicken Pox.	Cancer.	Phthisis	Bronchitis, Pleurisy, and Pneumonia	TOTAL. All Diseases.	
									Typhus.	Enteric or Typhoid.	Other or Doubtful.												
{	NEWBURY Rural Sanitary District	Under 5 5 upwds.	7	...	1	2	...	1	1	5	28 } 112 }
	NEWBURY Urban Sanitary District ...	Under 5 5 upwds.	...	...	10	7	...	4	...	4	1	...	...	...	...	...	...	...	...	1	5	27 } 83 }
	HUNGERFORD Rural Sanitary District	Under 5 5 upwds.	...	...	8	...	...	4	...	...	...	2	...	...	...	...	...	...	...	...	...	10 } 205 } 836 }
	ABINGDON Rural Sanitary District	Under 5 5 upwds.	2	3	12	1	...	9	...	...	1	1	46	...	3	...	...	...	...	5	12	59 } 105 } 487 }
	ABINGDON Urban Sanitary District	Under 5 5 upwds.	...	...	5	...	...	38	...	...	1	7	...	1	...	...	...	...	...	1	5	26 } 143 }
	WALLINGFORD Rural Sanitary District	Under 5 5 upwds.	...	...	1	...	...	2	...	1	...	6	...	...	...	...	...	...	...	...	...	3 } 24 } 104 }
	WALLINGFORD Urban Sanitary District	Under 5 5 upwds.	...	...	...	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...	2 } 11 }
	BRADFELD Rural Sanitary District	Under 5 5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1 } 5 } 40 }
{	COOKHAM Rural Sanitary District ...	Under 5 5 upwds.	1	17	1	...	...	14	...	...	...	3	...	...	...	...	...	...	1	...	...	8 } 127 } 510 }
	MAIDENHEAD Urban Sanitary District	Under 5 5 upwds.	1	19	...	1	...	14	...	...	...	6	...	...	...	...	...	...	4	...	...	9 } 112 } 400 }
	EASTHAMPTSTEAD Rural Sanitary District ...	Under 5 5 upwds.	...	23	...	1	1	...	...	...	...	5	...	...	...	...	...	...	...	...	...	16 } 105 } 388 }
	WINDSOR Rural Sanitary District ...	Under 5 5 upwds.	...	28	...	3	...	...	...	...	...	6	...	1	...	...	...	...	...	...	...	3 } 22 } 104 }
{	TOTALS	Under 5 5 upwds.	2	67	35	3	2	121	...	1	1	42	...	...	1	...	...	...	6	...	3	72 } 788 }
		At all ages	5	73	91	11	...	103	...	11	5	86	...	12	15	...	1	...	1	13	42	221 } 3192 }	
		At all ages	7140	12614	2224	...	12	224	...	12	6	128	...	12	16	...	1	7	13	45	2933980		

? These two cases returned as "fever, possibly suppressed scarlet fever."

* Return of this district incomplete.

TABLE III.

No. of Corrected Deaths from all Causes, and Percentages of Mortality at various Groups of Ages, in Sanitary Districts, Deaths in Public Lunatic Asylums being excluded, and those in Union Houses distributed in the respective Districts according to previous residence.

	NUMBER OF DEATHS OCCURRING AT VARIOUS AGES						TOTAL.		PERCENTAGE OF TOTAL MORTALITY OCCURRING AT VARIOUS AGES.						
	Under 1 year	1 to 5	5 to 15	15 to 25	25 to 60	Above 60	Under 5	All Ages	Under 1 year	1 to 5	5 to 15	15 to 25	25 to 60	Over 60	TOTAL. Under 5
NEWBURY { Rural Sanitary District Urban "	31 48	31 33	19 17	7 11	38 26	70 47	62 81	196 182	15.3 27.0	15.9 18.0	9.7 9.3	3.6 6.0	19.4 14.3	35.7 25.8	31.2 45.0
HUNGERFORD Rural Sanitary District	46	27	19	7	58	143	73	300	15.3	9.0	6.3	2.3	19.8	47.7	24.3
ABINGDON { Rural Sanitary District Urban "	39 18	29 12	6 3	8 1	46 18	90 41	68 30	218 93	17.9 19.3	13.3 12.0	2.7 3.2	3.7 1.1	21.6 19.3	41.3 44.1	31.2 32.3
WALLINGFORD { Rural Sanitary District... .. Urban "	32 6	32 6	7 4	9 1	29 19	67 30	64 12	176 66	18.1 9.1	18.3 9.1	4.0 6.1	5.1 1.5	16.5 28.8	38.1 45.4	36.4 18.2
BRADFELD Rural Sanitary District	47	29	18	12	57	83	76	246	19.1	11.8	7.3	4.9	23.1	33.8	30.9
COOKHAM { Rural Sanitary District Maidenhead Urban Sanitary District...	23 36	12 22	10 8	9 5	29 42	48 49	35 58	131 162	17.6 22.2	9.1 13.6	7.6 6.2	6.9 3.1	22.1 25.9	35.1 30.2	26.7 35.8
EASTHAMPESTEAD Rural Sanitary District	37	17	9	10	39	45	54	157	23.6	10.8	5.7	6.4	24.3	28.7	34.4
WINDSOR Rural Sanitary District	61	47	19	10	80	80	108	297	20.5	15.9	6.4	3.4	27.0	27.0	36.4
TOTAL	424	297	149	90	481	793	721	2224	Mean Rate.	19.1	13.8	4.0	21.6	35.3	32.9



BERKSHIRE COMBINED SANITARY DISTRICTS. 1882.

TABLE IV.

(A)

TABLE OF DEATHS during the Year 1882, in the Rural Sanitary District of Newbury, classified according to Diseases, Ages, and Death Rates, and showing also the Births therein during the Year.

[illegible]

TABLE IV. (B)

TABLE OF DEATHS during the Year 1882, in the Urban Sanitary District of Newbury, classified according to Diseases, Ages, and Death Rates, and showing also the Births therein during the Year.

NEWBURY RURAL SANITARY DISTRICT.

(No. of Column)		POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							MORTALITY FROM SUBJOINED CAUSES DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																				
		Census 1881.	Corrected Population estimated to middle of 1882.		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Croup (not spasmodic).	Whooping Cough.	Typhus.	Contind. Fevers.		Diarrhoea and Dysentery.	Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Cancer.	Phtthisis.	Bronchitis, Pneumonia & Pleurisy.	Heart Disease.	Injuries.	Other Diseases.
																			Enteric or Typhoid.	Other or doubtful.												
1	10,143	10,125	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
First Quarter	...	...	83	43	9	5	1	2	8	18	.....	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	2	3	7	6	...	20
Second Quarter	...	...	82	38	6	10	5	3	4	10	.....	...	...	7	1	2	1	...	...	...	...	...	...	...	...	...	3	3	1	1	...	19
Third Quarter	...	...	89	49	12	11	9	2	5	10	.....	...	...	11	1	1	2	...	...	2	...	...	...	...	...	1	3	2	...	1	1	24
Fourth Quarter	...	...	95	63	22	7	2	4	11	17	.....	...	...	3	...	1	3	...	...	1	...	1	...	2	...	1	5	14	5	...	27	
TOTAL FOR THE YEAR	...	...	349	193	49	33	17	11	28	55	.....	...	...	21	2	9	6	...	...	3	...	1	...	2	1	9	13	22	13	1	...	90
Total Deaths from specified diseases under 5 and above 5	...	...	...	...	...	...	...	...	...	...	Under 5 5 upwds.	...	...	11	1	7	6	...	...	1	...	...	...	...	1	...	...	...	12	...	...	...
Deaths occurring within the division or district in Union House	...	...	...	...	...	...	...	...	...	...	...	...	...	10	1	2	...	...	2	...	...	...	...	...	...	...	4	2	2	...	...	15

No. of Births.	{ Males Females	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	The Year.	Corrected Death Rates and Birth Rate per 1000 of population, Census 1881.	Chief Zymotic Diseases ... Phthisis ... Lung Inflammations ... Births ... Deaths from all causes...	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	The Year.
		51	37	45	46	179			20	44	67	39	42
No. of Deaths.	{ Males Females	32	45	44	49	170	...	...	12	12	8	19	13
		17	22	25	38	102			28	4	...	55	22
No. of Deaths.	{ Males Females	26	16	24	25	91	...	...	32	32	34	37	34
		26	16	24	25	91			16	14	17	23	17

BERKSHIRE COMBINED SANITARY DISTRICTS. 1882.

TABLE IV. (C)

TABLE OF DEATHS during the Year 1882, in the Rural Sanitary District of Hungerford classified according to Diseases, Ages, and Death Rates, and showing also the Births therein during the Year.

HUNGERFORD RURAL SANITARY DISTRICT.

POPULATION AT ALL AGES.

Census 1881.

Corrected Population estimated to middle of 1882.

17,795

17,601

23

Area in Acres

98,287

MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.

At all ages.

Under 1 year.

1 and under 5.

5 and under 15.

15 and under 25.

25 and under 60.

60 and upwards.

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

Small Pox.

Measles.

Scarlatina.

Diphtheria.

Croup (not spasmodic).

Whooping Cough.

Typhus.

Enteric or Typhoid.

Other or doubtful.

Contind Fevers.

Diarrhoea and Dysentery.

Cholera.

Rheumatic Fever.

Erysipelas.

Pyæmia.

Puerperal Fever.

Cancer.

Phtisis.

Bronchitis, Pneumonia & Pleurisy.

Heart Disease.

Injuries.

Other Diseases.

First Quarter

Second Quarter

Third Quarter

Fourth Quarter

...

...

...

...

568

300

46

27

19

7

58

143

...

...

...

...

TOTAL FOR THE YEAR

...

Total Deaths from specified diseases under 5 and above 5

...

Deaths occurring within the division or district in Union House

...

No. of Births.

Males

Females

No. of Deaths.

Males

Females

84

48

81

78

77

62

67

71

309

259

43

45

45

38

25

35

37

32

150

150

2.5

.7

.2

3.2

1.8

1.4

1.1

2.5

2.0

2.5

30.4

36.3

31.3

31.1

13.5

17.0

20.3

18.9

15.6

17.0



BERKSHIRE COMBINED SANITARY DISTRICTS. 1882.

TABLE IV.

(D)

TABLE OF DEATHS during the Year 1882, in the Rural Sanitary District of Abingdon classified according to Diseases, Ages, and Death Rates, and showing also the Births therein during the Year.

[illegible]

BERKSHIRE COMBINED SANITARY DISTRICTS. 1882.

TABLE IV. (E)

TABLE OF DEATHS during the Year 1882, in the Urban Sanitary District of Abingdon classified according to Diseases, Ages, and Death Rates, and showing also the Births therein during the Year.

ABINGDON URBAN SANITARY DISTRICT.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
MORTALITY FROM SUBJOINED CAUSES DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.										MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.										POPULATION AT ALL AGES.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Area in Acres	Census 1881.		Corrected Population estimated to middle of 1882.	Registered Births.	At all ages.						Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Croup (not spasmodic).	Whooping Cough.	Contind Fevers.			Diarrhoea and Dysentery.	Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Cancer.	Phthisis.	Bronchitis, Pneumonia & Pleurisy.	Heart Disease.	Injuries.	Other Diseases.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	1881.	5,730			Enteric or Typhoid.	Other or doubtful.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
(No of Column)	2	5,676	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
First Quarter	47	21	7	1	...	1	6	6

No. of Births.	The Year.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	The Year.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	The Year.
Males	25	25	20	22	92	...	...	...	...	...
		22	26	21	8	77					
Females	14	12	7	11	44	...	...	...	...	...
		7	12	9	15	43					

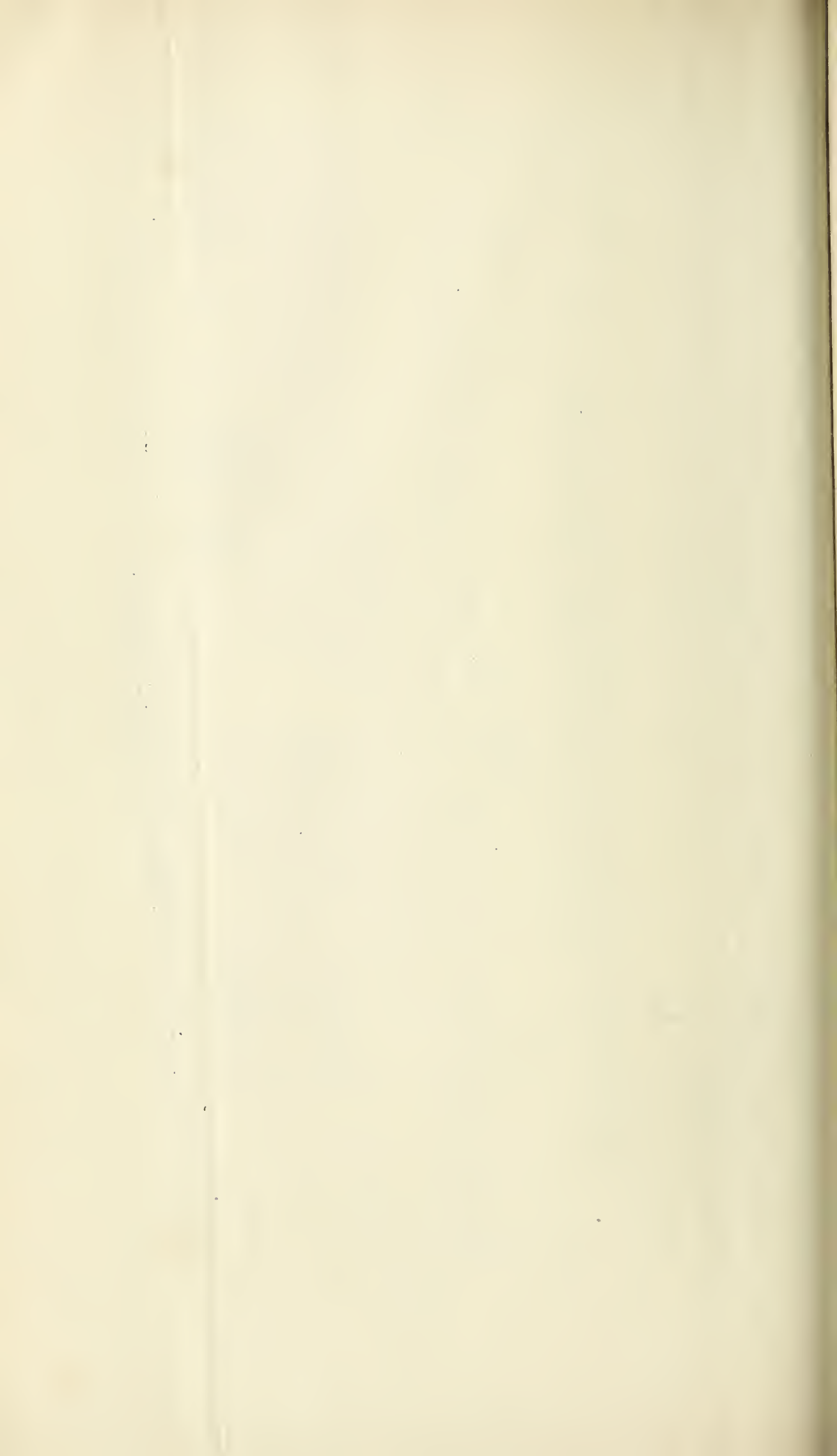


BERKSHIRE COMBINED SANITARY DISTRICTS. 1882.

TABLE IV.
(F)

TABLE OF DEATHS during the Year 1882, in the Rural Sanitary District of Wallingford classified according to Diseases, Ages, and Death Rates, and showing also the Births therein during the Year.

[illegible]



BERKSHIRE COMBINED SANITARY DISTRICTS. 1882.

TABLE IV.

(G)

TABLE OF DEATHS during the Year 1882, in the Urban Sanitary District of Wallingford classified according to Diseases, Ages, and Death Rates, and showing also the Births therein during the Year.

[illegible]

ERRATUM.—The figures entered under heading "Fevers—other or doubtful," Column 21, should appear under heading "Diarrhoea and Dysentery," Column 22.



BERKSHIRE COMBINED SANITARY DISTRICTS. 1882.

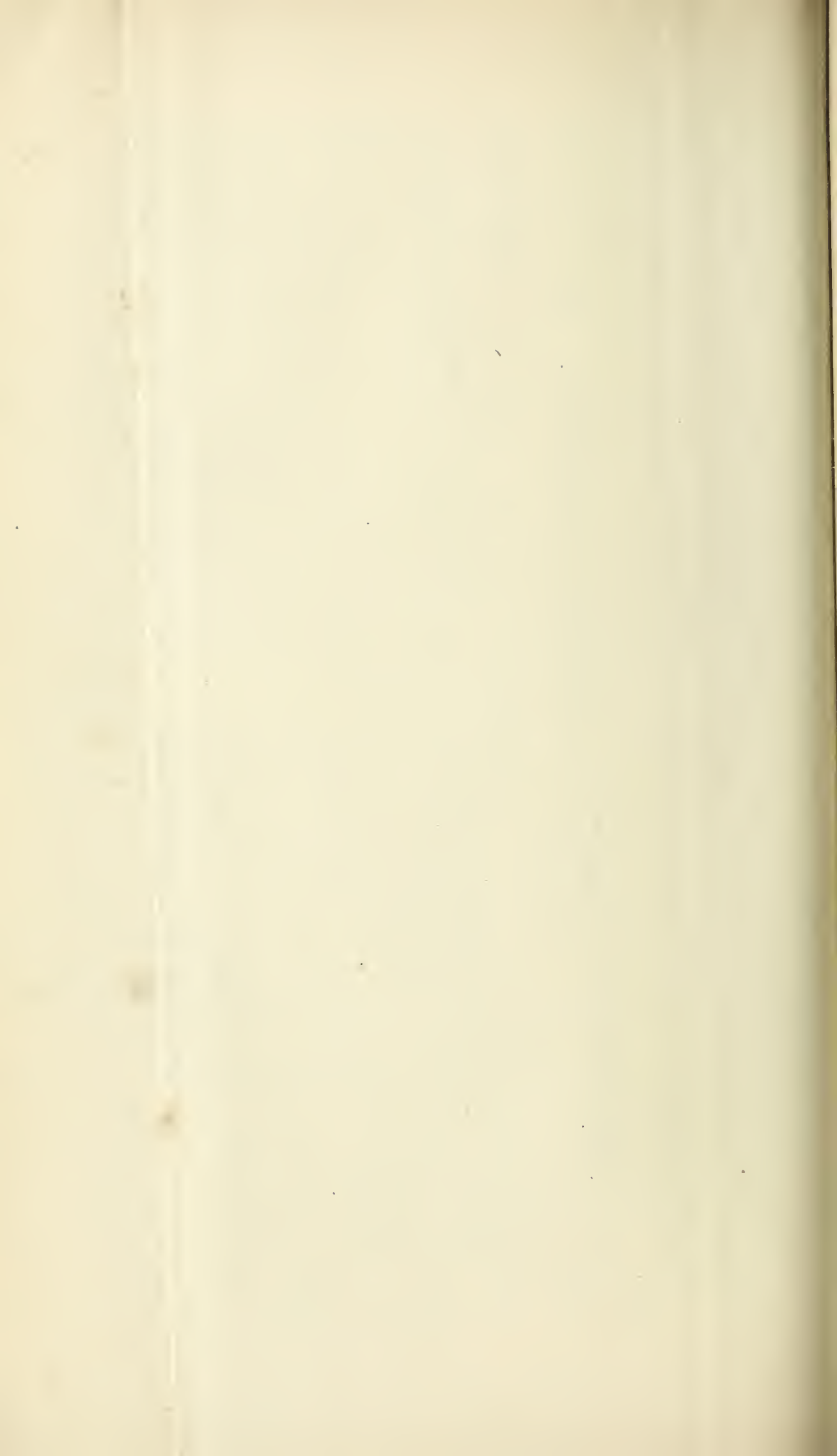
TABLE IV.

(H)

TABLE OF DEATHS during the Year 1882, in the Rural Sanitary District of Bradfield classified according to Diseases, Ages, and Death Rates, and showing also the Births therein during the Year.

[illegible]





BERKSHIRE COMBINED SANITARY DISTRICTS. 1882.

TABLE IV. (J)

TABLE OF DEATHS during the Year 1882, in the Urban Sanitary District of Maidenhead classified according to Diseases, Ages, and Death Rates, and showing also the Births therein during the Year.

MAIDENHEAD URBAN SANITARY DISTRICT.																																																		
POPULATION AT ALL AGES.										MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.										MORTALITY FROM SUBJOINED CAUSES DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																														
Census 1881.		Corrected Population estimated to middle of 1882.	Registered Births.						At all ages.						Under 1 year.						1 and under 5.						5 and under 15.						15 and under 25.						25 and under 60.						60 and upwards.					
8,219		3	4	5	6	7	8	9	10	11	12	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Croup (not spasmodic).	Whooping Cough.	Typhus.	Enteric or Typhoid.	Contind Fevers.	Diarrhoea and Dysentery.	Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Cancer.	Phthisis.	Bronchitis, Pneumonia & Pleurisy.	Heart Disease.	Injuries.	Other Diseases.																		
(No. of Column)		2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33																		
First Quarter	...	...	65	59	13	12	4	2	16	12	.....	...	1	1	1	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Second Quarter	...	...	71	41	10	3	1	3	9	15	.....	2	1	...	...	5	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...							
Third Quarter	...	...	57	46	8	5	2	...	12	19	.....	1	...	...	...	...	...	1	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...								
Fourth Quarter	...	...	51	32	5	3	2	1	10	11	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL FOR THE YEAR	...	...	244	178	36	23	9	6	47	57	.....	3	2	1	3	18	...	1	...	1	...	2	2	...	...	...	...	...	...	...	...	...	...							
Total Deaths from specified diseases under 5 and above 5	...	...	...	...	...	...	...	...	...	...	Under 5 5 upwds.	...	2	...	3	16	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...								
Deaths in Union House.	...	...	...	21	...	...	...	1	4	16	Under 5 5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
In Cottage Hospital	...	...	...	7	...	1	1	1	3	1	5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Deaths occurring within the division or district among persons not belonging thereto (in Union House and Cottage Hospital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
No. of Births.	{ Males ... Females ...	23 42	45 26	28 29	26 25	122 122	Corrected Death Rates and Birth Rate per 1000 of population, Census 1881.															Chief Zymotic Diseases ...						7.7	3.8	1.9	.5	3.4	The Year.																	
No. of Deaths.	{ Males ... Females ...	34 25	23 18	31 15	14 18	102 76																Phthisis ... Lung Inflammations ...						1.9 2.9	1.5 3.3	1.5 1.0	1.0 2.4	1.3 2.4	29.1 19.8																	





TABLE V.

REGISTRATION and Sanitary Districts.		Birth Rate per 1,000 living.	Corrected Death Rate per 1,000 living.	Percentage Rate of Corrected Deaths to Births.	Percentage Rate of Deaths under 1 year to Births.
NEWBURY ...	{ Rural Sanitary District... Urban "	26·7 34·5	17·4 17·9	65·1 52·2	9·9 14·0
HUNGERFORD	Rural Sanitary District ...	32·3	17·0	52·8	8·1
ABINGDON...	{ Rural Sanitary District... Urban "	30·6 29·6	16·1 16·4	52·5 55·0	9·4 9·4
WALLINGFORD	{ Rural Sanitary District... Urban "	30·7 32·4	15·5 24·9	50·5 76·8	9·2 7·0
BRADFELD	Rural Sanitary District ...	33·4	13·8	42·5	8·1
COOKHAM ...	{ Rural Sanitary District... Maidenhead Urban Sanitary District...	29·0 29·1	14·9 19·3	51·4 66·4	9·0 14·7
EASTHAMPSTEAD	Rural Sanitary District ...	28·5	15·5	47·6	11·2
WINDSOR	Rural Sanitary District ...	32·9	14·8	44·8	9·2
MEAN RATE ...	...	31·0	16·0	51·7	9·8

Deaths in Public Lunatic Asylums are excluded from this Table.

Those in Union Houses are distributed in the respective Sanitary Districts according to previous residence.



REGISTRATION and Sanitary Districts.	Death Rates per 1,000 living for			Percentage of Total Mortality caused by		
	*Chief Zymotic Diseases.	Phthisis.	Pulmonary Inflamma- tions.	*Chief Zymotic Diseases.	Phthisis.	Pulmonary Inflamma- tions.
NEWBURY { Rural Sanitary District... ..	3.4	.7	2.4	19.4	4.6	13.8
{ Urban "	4.2	1.3	2.2	22.5	6.6	12.1
HUNGERFORD Rural Sanitary District	2.0	.7	2.5	11.7	4.3	15.0
ABINGDON { Rural Sanitary District	1.8	1.0	3.0	11.0	9.2	18.3
{ Urban "	1.7	1.8	1.7	10.8	10.8	11.8
WALLINGFORD { Rural Sanitary District...	2.2	.8	2.0	14.2	6.2	14.2
{ Urban "	.4	3.0	1.5	1.5	12.2	6.1
BRADFELD Rural Sanitary District	1.6	1.0	2.4	12.6	7.3	17.1
COOKHAM { Rural Sanitary District... ..	1.5	1.2	1.7	9.9	8.4	11.4
{ Maidenhead Urban Sanitary District...	3.4	1.3	2.4	17.9	6.8	12.4
EASTHAMPTON Rural Sanitary District	1.7	.9	2.1	12.8	7.0	15.3
WINDSOR Rural Sanitary District	2.3	1.3	2.3	15.5	8.8	15.8
MEAN RATE IN 1882	2.1	1.1	2.2	13.2	7.2	13.6
" " 1881	1.1	1.6	2.2	9.7	10.7	14.7
" " 1880	2.0	1.5	2.9	11.9	8.8	17.2
" " 1879	1.2	1.7	3.3	9.0	9.9	18.9
" " 1878	2.4	1.6	2.9	13.7	9.1	16.4
" " 1877	2.0	1.9	2.4	11.2	10.8	14.5
" " 1876	1.7	1.6	2.5	10.2	9.7	14.4
" " 1875	2.2	2.0	3.3	11.3	10.1	16.7
" " 1874	...	1.8	2.5	9.0	10.7	14.1

* Including small pox, measles, scarlet fever, diphtheria (and croup), whooping cough, fever (typhus, typhoid and other continued), diarrhoea (and dysentery) pycemia.



BERKSHIRE COMBINED SANITARY DISTRICTS. 1882.

TABLE VII.

Return, by Inspectors of Nuisances, of Sanitary Works carried out in the Year 1882.

[illegible]

